Final Revision
on Theme 3
Units 8, 9&10

First: **Choose the correct answer:**

1. The reciprocal of 9 is .... (1 or $\frac{1}{9}$ or 19 or 9)
2. The reciprocal of $\frac{2}{7}$ is .... (2 or $\frac{7}{2}$ or 7 or $\frac{2}{7}$)
3. The reciprocal of $\frac{1}{2}$ is .... (1 or 12 or $\frac{1}{2}$ or 2)
4. $\frac{3}{4}$ X .... = 1 (0 or 1 or $\frac{4}{3}$ or $\frac{3}{4}$)
5. $\frac{3}{6}$ ÷ .... = 1 (2 or $\frac{1}{2}$ or 6 or $\frac{6}{3}$)
6. $\frac{2}{3} \div \frac{1}{5}$ = ... ($\frac{2}{3}$ X 5 or $\frac{3}{2}$ X 5 or $\frac{3}{4} \times \frac{1}{5}$ or $\frac{4}{3} \times \frac{1}{5}$)
7. .... ÷ .... = $\frac{4}{7} \times \frac{5}{4}$ ($\frac{7}{4} \div \frac{5}{4}$ or $\frac{4}{7} \div \frac{4}{5}$ or $\frac{7}{4} \div \frac{5}{4}$ or $\frac{2}{3} \times \frac{1}{5}$)
8. Any number multiplied by its reciprocal equals .... (0 or 1 or the same number or twice the number)
9. $\frac{2}{5}$ ☐ the reciprocal of 5 ($<$ or $=$ or $>$ or $\leqslant$)
10. The reciprocal of .... is $1\frac{2}{3}$. ($2\frac{2}{3}$ or $1\frac{3}{2}$ or $\frac{3}{5}$ or $\frac{5}{3}$)
11. .... ÷ $\frac{1}{2} = \frac{1}{3}$ ($\frac{1}{6}$ or 6 or $\frac{3}{1}$ or $\frac{2}{3}$)
12. $\frac{5}{6} \div \frac{2}{3}$ = ... ($\frac{5}{2}$ or $1\frac{1}{4}$ or $\frac{3}{2}$ or $\frac{4}{5}$)
13. 5.2 X 0.3 = ... (0.156 or 1.56 or 15.6 or 156)
14. 45 ÷ 0.9 = ... ÷ 9 (0.45 or 450 or 45 or 4.5)

15 If a water tap is leaking 420 litres of water in one hour, then the rate of leaking = ... l/min. (420 or 7 or 70 or 42)

16 If Ahmed has 64 LE and Yasmin has 24 LE, then the ratio of what Yasmin has to what Ahmed has is .... (8 : 3 or 3 : 8 or 6 : 8 or 8 : 32)

17 35 : 20 = ... : .... (7 : 4 or 4 : 7 or 5 : 7 or 4 : 5)

18 An amount of food is distributed between two people in the ratio 3:4, then what the first person took = ... the total. ($\frac{3}{4}$ or $\frac{3}{7}$ or $\frac{4}{7}$ or $\frac{4}{3}$)

19 The ratio between the perimeter of a square and its side length is ....

(4 : 1 or 1 : 3 or 3 : 1 or 1 : 4)

20 A factory produces 5,400 cans of soda in 9 hours, then the rate of production =............ can/hour. (6 or 60 or 600 or 6,000)

21 Mark spends 120 LE in 4 days. What's the rate of what he spends per day? (50 or 30 or 15 or 60)

22 Which ratio of the following equals $\frac{1}{3}$? ($\frac{6}{12}$ or $\frac{4}{20}$ or $\frac{5}{15}$ or $\frac{5}{20}$)

23 Which ratio of the following does not equal the fourth?

($\frac{4}{16}$ or $\frac{5}{20}$ or $\frac{7}{28}$ or $\frac{10}{30}$)

24 Which ratio of the following is in the simplest form?

($\frac{3}{12}$ or $\frac{7}{21}$ or $\frac{9}{17}$ or $\frac{5}{30}$)

25 If Mohamed spends 120 pounds within 4 days, then Mohamed spends .... in 10 days. (150 or 180 or 300 or 1,200)

26 The ratio between the perimeter of an equilateral triangle and its side length = ... (1 : 4 or 4 : 1 or 1 : 3 or 3 : 1)

27 The ratio 9 : 12 in the simplest form equals .... ($\frac{1}{2}$ or $\frac{1}{3}$ or $\frac{3}{4}$ or $\frac{2}{3}$)

28 A worker paints a wall with an area of 36 m^2 in 4 hours, then the rate of painting is .... m^2/hr. (7 or 8 or 9 or 10)

29 175 : 125 = ... : .... (5 : 3 or 5 : 4 or 2 : 3 or 7 : 5)

30 $\frac{7}{5}$ is equivalent to .... ($\frac{7}{15}$ or $\frac{15}{14}$ or $\frac{25}{35}$ or $\frac{35}{25}$)

31 $\frac{14}{15}$ and $\frac{3}{4}$ are ....(equivalent ratios or not equivalent ratios)

32 36 : 72 = ... : .... (6 : 18 or 5 : 4 or 1 : 2 or 3 : 5)

33 The ratio between two numbers is 2 : 5. If the first number becomes 8 then the second number will be .... (8 or 10 or 15 or 20)

34 A carpenter needs 40 m^2 to make 10 tables, then the rate of used wood = ... m^2/table. (2 or 3 or 4 or 300)

35 4 : 9 is equivalent to .... (9 : 2 or 18:81 or 18:4 or 20:45)

36 If $\frac{3}{7} = \frac{15}{x}$, then x = ... (3 or 5 or 15 or 35)

37 If 1 : x = 0.5, then x = ... (1 or 2 or 3 or 3)

38 .... are equivalent ratios.

($\frac{2}{6}$, $\frac{9}{18}$ or $\frac{12}{15}$, $\frac{16}{20}$ or $\frac{6}{7}$, $\frac{12}{21}$ or $\frac{2}{3}$, $\frac{5}{10}$)

39 If 3 : 5 = 12 : 4 x, then x = ... (20 or 24 or 5 or 10)

40 If x : 15 = 1 : 3, then x + 3 = ... (5 or 8 or 9 or 11)

41 5 : x = 0.2, then x = ... (5 or 10 or 25 or 0.5)

42 Salma reads 280 pages of stories weekly, then she reads .... pages daily. (40 or 7 or 14 or 70)

43 If Mark has 18 LE and Ibrahim has 54 LE, then the ratio of what Ibrahim has to what mark has is ...... : ...... (1 : 8 or 8 : 3 or 3 : 1 or 6 : 12)

44 $\frac{5}{15}$ and $\frac{3}{9}$ are .... (equivalent ratios or not equivalent ratios)

45 The ratio of two numbers is 1 : 4. If the first number becomes 5, then the second number will be .... (42 or 14 or 20 or 16)

46 If 8 : x – 1 = 6 : 12, then the value of x = ... (17 or 8 or 15 or 7)

47 Ahmed needs to study for 49 hours to finish his weekly homework, so the rate of his study per day is .... hr. (2 or 3 or 4 or 7)

48 If a car covers 240 km in 3 hours, then its speed is .... km/hr.

(70 or 80 or 90 or 110)

49 2.3 ton [ ] 2300 kg (> or < or = or otherwise)

50 24 km/hr = ... m/min (4000 or 400 or 40 or 2400)

51 5.3 pounds = ... piasters (5300 or 530 or 53 or 5.3)

52 If a cyclist runs at 42 km/hr, his speed in meters per minute is ....

(7 or 70 or 700 or 42,000)

53 $\frac{2}{8}$ = ... % (35 or 45 or 12.5 or 25)

54 $1\frac{1}{4}$ = ... % (25 or 12.5 or 125 or 1,250)

55 $\frac{9}{18}$ = ... % (30 or 25 or 50 or 60)

56 10 % of .... = 27 (540 or 270 or 10 or 2.7)

57 35% of 160 = ... (56 or 5.6 or 56/100 or 560)

58 30% of a number equals ....

(its third or its three-tenths or its three-fifths or its three-sevenths)

59 60 % of .... = 360 (0.6 or 6 or 60 or 600)

60 5% of .... LE = 120 LE (240 or 2400 or 1200 or 120)

61 If the original price of a dress is 980 LE, then its sale price after applying a discount of 20% is .... (196 or 784 or 1176 or 960)

62 In a restaurant, there's 10% added to each meal as service. If the price of a meal is 240 LE, then the price of the meal after adding service is .... LE. (248 or 264 or 24 or 258)

63 $1 - \frac{3}{4}$ = ... % (25 or 2.5 or $\frac{1}{4}$ or 0.25)

64 The percentage that represents 340 LE of 1,000 LE is ....

(340% or 34% or 340% or 3.5%)

65 61% of a kilogram = ... gram (61 or 610 or 6.1 or 6100)

Second: Complete:

1 The reciprocal of 6 is ....

2 The reciprocal of $1\frac{3}{5}$ is ....

3 $\frac{7}{5} \div \frac{1}{5}$ = ...

4 The number which has no reciprocal is ....

5 $\frac{7}{13} \div$ .... = 1

6 5 ÷ .... = 5 X 2

7 The reciprocal of the number .... is $3\frac{3}{5}$.

8 If 53 x 31 = 1,643, then 16.43 ÷ 3.1 = ...

9 If 25 × 33 = 825, then 2.5 × 3.3 = ...

10 0.02 × 0.03 = ...

11 4.2 ÷ 0.07 = ... ÷ 7

12 .... ÷ 3.5 = 1,200 ÷ 35

13 $1\frac{3}{4}$ ÷ .... = 4

14 6 ÷ $\frac{5}{7}$ = ... X ....

15 5.7 X................................= 570

16 .... ÷ 0.8 = 2.3

17 .... ÷ 4 = $\frac{3}{8}$

18 $\frac{4}{15} \div \frac{2}{3}$ = ... × ....

19 The ratio between 360 and 540 is .... : ....

20 The ratio between the side of a rhombus and its perimeter is .... : ....

21 Farida spends 480 LE in 4 days, then the rate of what she spends is .... LE/day.

22 In the ratio 5 : 7, the first term is .... and the second term is ....

23 If a car covers 408 km in 3 hours, then its average speed = ... km/hour.

24 The ratio between two sides in the same square is .... : ....

25 The ratio between two numbers is 4 : 8. The first number becomes 18, then the second number is ....

26 If $\frac{x}{8} = \frac{3}{4}$, then x = ...

27 If 4 : 7 = x : 35, then x – 3 = ...

28 If 2 : x = 16 : 24, then 3x = ...

29 If $\frac{A}{B} = \frac{C}{D}$, then A × D = ...

30 $\frac{2}{x}$ and $\frac{8}{20}$ are equivalent ratios, then x = ...

31 $\frac{2}{6} = \frac{3}{\dots\dots} = \frac{\dots\dots}{12} = \frac{5}{\dots\dots} = \frac{\dots\dots}{30}$

32 $\frac{x+3}{14} = \frac{1}{2}$, then x = ...

33 Gamal studies for 48 hours in 8 days, then he studies .... hours in a day.

34 A printer prints 27 papers in 3 minutes, then it prints .... papers in 8 minutes.

35 A cyclist covers 8 km in 2 minutes, then he will cover .... km in 5 minutes

36 12 km/hr = ... = ... km/min

37 280 gram/sec = ... = ... kg/min

38 71,500 cm = ... km

39 $\frac{23}{25}$ = ... %

40 0.29 = ... %

41 $2\frac{15}{100}$ = ... %

42 A number which 18% of it equals 54 is ....

43 75% of 200 = ...

44 1 – 37% = ...

45 .... % of 180 = 45

46 60 % of .... LE = 360 LE

47 If there are 60 students in class and 95% passed the test, then the students who failed the test (in numbers) are .... students.

48 Gehan scored 540 out of 600. Then the percentage of marks scored is ....

49 50 m/min = ... = ... km/hr

50 1 – 9% = ... %

Third: **Answer the following:**

1. Ahmed has $\frac{5}{7}$ meters of pipe, and he wants to divide it into 15 pieces of equal length to make models of small robots. What is the length of each piece of pipe that Ahmed will use in each robot?

....

....

2. Nader bought 12 pizza pies and divided them among his friends, each of whom got $\frac{2}{3}$ of the pie. How many friends does Nader have?

....

....

3. Nadia bought $\frac{8}{9}$ kg of apples and she wants to divide them among her three children. What is the share of each child?

....

....

4. Hossam distributed 18 cake molds to a group of children, and each of them got $\frac{2}{3}$ cake. How many children did Hossam distribute cake to?

....

....

5. Mona bought 9 meters of fabric, she paid 214.2 pounds. What is the price of each meter of fabric?

....

....

6. A car consumed 280 liters of gasoline in 4 months. How many liters did the car consume on average in one month?

....

....

7. Murad bought 3 notebooks for 4.75 LE each and 5 pens for 1.25 LE each. Calculate the money Murad paid.

....

....

8. Mark bought 16 boxes of juice; the price of each one is 5.5 pounds. How many pounds did he pay the seller?

....

....

9. Using the following figure, complete the following:

   a. The ratio between shaded squares and white squares in the simplest form is .... : ....

   b. The ratio between shaded squares and all squares in the simplest form is .... : ....

   c. The ratio between white squares and all squares in the simplest form is .... : ....

10. Ahmed walks 28 km in a week. Calculate the distance that Ahmed walks per day.

....

....

11 Complete the following ratio tables:

a

1	2	....	....
3	....	9	18

b

....	....	12	100
20	15	60	....

12 An orange export company puts every 25 oranges in one box. Answer the following:

a The number of oranges in 10 boxes = ...

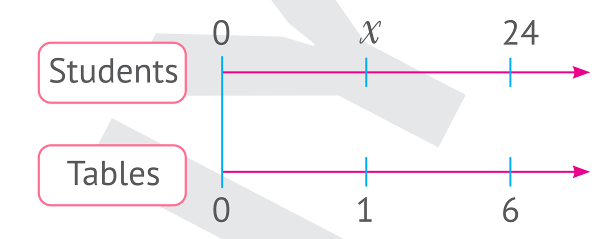
b The number of boxes that are enough to contain 225 oranges = ...

13 Galal uploads videos into YouTube, if the video takes 15 minutes:

a How many videos will be uploaded in 375 minutes?

b How long will Galal take to upload 4 videos to YouTube?

14 From the following double number line, find the value of x:



15 Laine reads 360 pages in 240 minutes, and Omar reads 45 pages in 25 minutes. Are they reading in equivalent ratios? Explain your answer.

....

....

16 Which is better to buy?

8 cans of green beans for 36 LE or 13 cans of green beans for 55.25 LE? Explain your answer. **(Where all cans are the same kind)**

....

....

17 Adham wants to plant trees; it takes him 10 minutes to plant a tree.

a How many trees do he plant in 2 hours?

b How long will he take to plant 24 trees?

18 Lila earns 20 points for every 5 stars she collects in a video game. Complete the ratio tables, then find the unit rate:

Point	4	....	16	20	28
Star	....	3	....	5	....

19 Omar is making loaves of banana bread. He makes 2 loaves of banana bread, and he uses 5 cups of flour in all. How much flour does he use per loaf?

....

....

20 A factory (A) produces 800 lamps in 40 hours, and another factory (B) produces 400 lamps of the same kind in 25 hours. Which factory has a better rate of production?

....

....

21 Mona bought 5 kg of strawberries; she paid LE 15. How much money does she pay to buy 7 kg?

....

....

22 A boy walks 15 km in 2 hours and 30 minutes. Calculate his average speed in meters per minute.

....

....

23 There's a dog running at a constant speed of 54 km/hr; convert its speed into m/min.

....

....

24 If the percentage of the number of girls in a school is 67%, find the percentage of the number of boys in the school.

....

....

25 Due to leakage, 30% of the water was lost from a water tank. If only 360 liters of water were lost, find the total capacity of the water tank.

....

....

26 An employee saves 700 LE monthly, if his monthly income is 4,000 LE:

a Find the percentage of what he saves monthly.

b Find the percentage of what he spends monthly.

27 Engy bought a car for 140,000. She paid 10% of its price. How much money did she pay?

....

....

28 A piece of cloth of 28 meters long was put in water, it shrunk by 7%. What is the length after shrinking?

....

....

29 The production cost of an 8 feet fridge is 5,400 LE, a 10% production tax is added to the cost. What is the total cost of the fridge?

....

....

30 An iPad that costs 20,800 LE is 20% off. Find:

a The money saved.

b The sale price of the iPad.

Final Revision
on Theme 4
Units 11, 12&13

First: **Choose the correct answer:**

1. All the following lie in the 4^{th} quadrant, except ....
   ((2 ,-3) or (-4 ,-3) or (5 ,-1) or (1 ,-1))
2. If the point (x ,-7) lies in the 3^{rd} quadrant, then the value of x is ....
   (2 or 4 or -1 or 1)
3. The point .... lies on the x-axis. ((2 ,-3) or (0 ,-3) or (4 ,-1) , ($1\frac{1}{4}$,0))
4. The point .... lies on the y-axis. ((2 ,-7) or (0 ,-7) or (1 ,-1) , (5 ,0))
5. Which of the following lies in the 2^{nd} quadrant?
   ((2 ,-3) or (0 ,-7) or (-1 , 9) or (7 ,0))
6. The image of the point (0 , 5) by reflection on y-axis is ....
   ((5, 0) or (0 ,-5) or (5 ,-5) or itself)
7. The image of the point (2 ,-9) by reflection on x-axis is ....
   ((2 , 9) or (-9 , 2) or (-2 ,-9) , (-2 , 9))
8. Which point of the following can be a vertex of a right-angled triangle if the other vertices are (0, 8) and (4, 0)?
   ((0 , 1) or (0 ,-1) or (0 , 0) or (1 , 1))
9. The distance between the two points (-5 , 6) and (-5 , 2) = ... units length.
   (-5 or 4 or 8 or 0)
10. The distance between -6 and 5 on the number line is ....
    (1 or -1 or 11 or 5)
11. The two points (3 , −7) and (−6 , −7) lie on the ....
    (horizontal line or vertical line or inclined line or otherwise)

12 The two points (3 , −7) and (3 , −3) lie on the ....

(horizontal line or vertical line or inclined line or otherwise)

13 A parallelogram which all sides are equal in length is called a ....

(square or rectangle or rhombus or trapezium)

14 A parallelogram which has a right angle is called a ....

(square or rectangle or rhombus or trapezium)

15 A parallelogram which all sides are equal in length and has right angle is called a .... (square or rectangle or rhombus or trapezium)

16 A parallelogram with dimensions of AB = 4 cm and BC = 6 cm, then the length of the corresponding height of AB ...... the length of the corresponding height of BC. (> or < or = or otherwise)

17 If the area of a parallelogram is 98 cm^2, and its base is 7 cm, then its corresponding height .... cm. (14 or 6 or 7 or 28)

18 If the base length of a parallelogram is 4 cm, and its corresponding height is 7 cm, then its area = ... cm^2. (14 or 28 or 32 or 16)

19 If the area of a parallelogram is 54 cm^2, and its base is 9 cm, then its corresponding height .... cm. (54 or 6 or 9 or 18)

20 A parallelogram with dimensions of AB = 14 cm and BC = 10 cm, then the length of the corresponding height AB ...... the length of the corresponding height to BC. (> or < or = or otherwise)

21 The number of heights of any triangle is .... (0 or 1 or 2 or 3)

22 A triangle with base length of 10 cm, and its corresponding height is 6 cm. Then its area = ... cm^2. (30 or 15 or 45 or 60)

23 The number of heights of a right-angled triangle is ..... (0 or 1 or 2 or 3)

24 If the area of a triangle is 25 cm^2, and its base is 10 cm, then the height is .... cm. (5 or 2.5 or 250 or 50)

25 The area of a triangle = ... ($\frac{1}{2}$ b x h or b x h or W x L or $\frac{1}{4}$ b x h)

26 If the perimeter of an equilateral triangle is 36 cm, its area is 36 cm^2. Then its height is .... cm. (3 or 10 or 30 or 6)

27 A triangle with base length is 8 cm, and its corresponding height is 5 cm. Then its area = ... cm^2. (30 or 15 or 40 or 20)

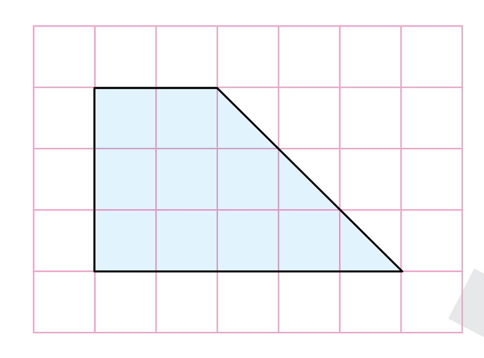
28 Which of the following can be used to calculate the area of the following trapezium?

((2 x 3) + (3 x 4) or

(2 + 3) + [$\frac{1}{2}$ (3 x 3)] or

(2 x 3) – [$\frac{1}{2}$ (3 x 3)] or

(2 x 3) + [$\frac{1}{2}$ (3 x 3)])



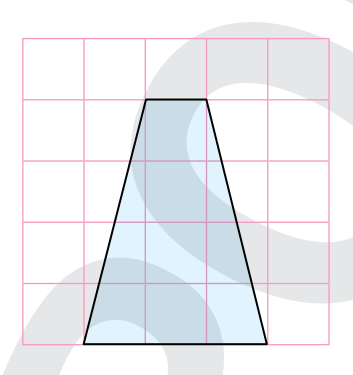
29 Which of the following can be used to calculate the area of the following trapezium?

((1 x 4) + (4 x 1) + (4 x 1) or

(4 x 1) + [$\frac{1}{2}$ (4 x 1)] + [$\frac{1}{2}$ (4 x 1)] or

(1 + 4) - [$\frac{1}{2}$ (4 x 1)] - [$\frac{1}{2}$ (4 x 1)] or

(1 x 4) - [$\frac{1}{2}$ (4 x 1)] - [$\frac{1}{2}$ (4 x 1)]



30 A cube with a surface area of 96 cm^2, then the edge length is .... cm.

(4 or 3 or 27 or 16)

31 The surface area of a cuboid whose dimensions are 6 cm, 4 cm, and 1 cm equals .... cm^2. (24 or 68 or 30 or 10)

32 If the sum of edges of a cube is 36 cm, then the area of one face is .... cm^2. (6 or 18 or 72 or 9)

33 A cuboid with dimensions of 0.4 dm, 7 cm, and 3 cm, then its surface area = ... cm^2. (21 or 61 or 122 or 20.8)

34 The surface area of a cuboid with dimensions of 2 cm , 5 cm, and 10 cm is .... cm^2.

(2 X 17 or 2 X 5 X 10 or 2 X (10 + 50 + 20) or 4 + 10 + 20)

35 The formula for the area of one face of a cube is ....

(6 s^2 or 4 s^2 or 6 s or s^2)

36 The ratio between the surface area of a cube and the area of one face is .... (1 : 4 or 1 : 6 or 4 : 1 or 6 : 1)

37 A cuboid with a height of 7 cm , a length of 9 cm, and a width of 1 cm, then the surface area is .... (79 or 158 or 63 or 34)

38 A cube of side length of 10 cm, then the area of one face is ...... cm^2.

(0.1 or 10 or 100 or 1,000)

39 The volume of a cuboid whose dimensions are 5 cm, 8 cm, and 2 cm is .... cm^3. (40 or 80 or 160 or 16)

40 A cube with a surface area of 150 cm^2, then the edge length is ....

(9 or 5 or 25 or 6)

41 If the base area of a cuboid is 180 cm^2, and its height is 9 cm, then its volume is .... cm^3. (20 or 180 or 1620 or 810)

42 If the volume of a cuboid is 280 cm^3, and its base area is 70 cm^2, then its height is .... cm. (40 or 7 or 4 or 40)

43 If we double one of the dimensions of a cuboid, then the ratio of the volume between the original cuboid and the new cuboid is .... : ....

(1 : 2 or 1 : 3 or 1 : 4 or 1 : 8)

44 The formula for the surface area of a cube is ....

(6 s^2 or 4 s^2 or 6 s or s^2)

45 A cubic meter is a unit of the ....

(capacity or mass or volume or time)

46 If the base area of a cuboid is 80 cm^2, and its height is 9 cm, then its volume is ....cm^3. (720 or 72 or 360 or 810)

47 The volume of a cuboid is 54 cm^3, its base is a square-shaped with side length of 3 cm, then its height = ... cm. (42 or 8.5 or 6 or 4.5)

48 The volume of a cuboid whose dimensions are 10 cm, 6 cm, and 3 cm is .... cm^3. (90 or 180 or 160 or 19)

49 The surface area of a cuboid with dimensions of 8 cm , 3 cm, and 7 cm is .... cm^2. (2 X 18 or 8 X 3 X 7 or 2 X (56 + 24 + 21) or 8 + 3 + 7)

50 A cuboid has a squared base, its base length is 6 cm and its height is 5 cm, then the volume = ... cm^3. (30 or 25 or 180 or 22)

51 A cuboid with a squared base, its volume is 150 cm^3. and its height is 6 cm, then its base length is .... cm. (5 or 6 or 25 or 900)

Second: Complete:

1. The point (5 ,-2) is the image of (.......... , ...) by reflection on x-axis.
2. The point (-7 ,-1) is the image of (.......... , ...) by reflection on y-axis.
3. The point A (2 ,-5) lies in the .... quadrant.
4. The coordinate plane is separated into .... quadrants.
5. The point C (0 , 3) lies on the ....
6. If the image of a point by reflection on y-axis is (-2 , 4),

   then the point is ....
7. The image of the point (1 ,-8) by reflection on the .... is (-1 ,-8).
8. The x-coordinate of any point that lies on the y-axis is ....
9. A (4,-4) , B(-5,-4) , then AB = ... unit(s).
10. X (-4 ,-1) , Y(-4 , 5) , then XY = ... unit(s).
11. The distance between A(3 , 7) and D(-2 , 7) is .... units.
12. The smaller the value of the y-coordinate, the .... the point

    to the x-axis.
13. If the point (-2 , 0) moved 3 units in the positive direction of y-axis it

    becomes ....
14. If the point (4 , 5) moved 2 units in the negative direction of x-axis it

    becomes ....
15. The area of a square = ... X ....
16. The area of a rectangle = ... X ....
17. The area of a rhombus = ... X ....
18. If the area of a parallelogram is 110 cm^2, and its base is 11 cm, then its

    corresponding height = ... cm.

19 The area of parallelogram whose base length is 5 cm, and its height is 7 cm is .... cm^2.

20 A rhombus has a side length of 9 cm, and its corresponding height is 6 cm, then its area = ... cm^2.

21 If the area of a square is 81 cm^2, then its side length is .... cm.

22 In a parallelogram, the longer height is corresponding to the .... base.

23 In a parallelogram, the shorter base is corresponding to the .... height.

24 A triangle has a base length of 9 cm and its corresponding base is 4 cm. Then its area = ... cm^2.

25 The number of heights of an equilateral triangle is ....

26 An obtuse triangle, its base length is 12 cm, and its corresponding height is 5 cm, then its area = ... cm^2.

27 If the area of a triangle is 20 cm^2, and its base length is 8 cm. Then the length of corresponding height is .... cm.

28 The perpendicular line segment drawn from the vertex of a triangle to the opposite side is called ....

29 The number of heights of a scalene triangle is ....

30 If the area of triangle is 35 cm^2 and its base is 10 cm, then the corresponding height is .... cm.

31 The surface area of a cube = ...

32 The volume of a cuboid = ...

33 The ratio between any two faces of the cube is .... : ....

34 The surface area of a cuboid with dimensions of 5 cm , 7 cm, and 3 cm is .... cm^2.

35 The surface area of a cube with an edge of 7 cm is .... cm^2.

36 If the surface area of a cube is 96 cm^2. Then the area of one face equals .... cm^2.

37 If the sum of edges of a cube is 48 cm, then its surface area is .... cm^2.

38 A cuboid whose volume is 180 cm^3, its height is 10 cm, and its length is 6 cm. Then its width = ... cm.

39 If the dimensions of a cuboid are 6 m, 7 m, and 2 m. Then its volume = ... m^3.

40 A cuboid has a volume of 120 m^3. If we double two of its dimensions, then the volume of the new cuboid = ... cm^3.

41 The ratio between the volume of a cuboid and itself after doubling one of its dimensions is .... : ....

42 If we double all dimensions of a cuboid, then the ratio between the new cuboid and the original cuboid is .... : ....

43 The surface area of a square-based pyramid = ...

44 If the surface area of a square pyramid is 88 cm^2, and its base length is 4 cm. Then the height of the side face = ...

45 The volume of a cuboid is 64 cm^3, and the area of its base is 16 cm^2, so its height = ... cm.

Third: Answer the following:

1 By using the opposite coordinate plane, locate the following ordered pairs.

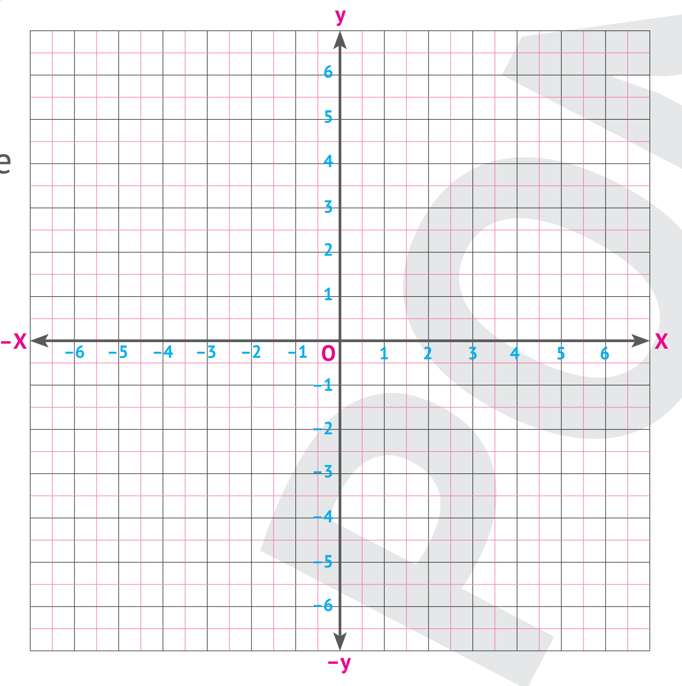
A (5 , -3), B (0 , 5) ,

C (-6 , 1) ,

D ($-1\frac{1}{2}$, -3) ,

E (-2 , 0) ,

F (1 , 1)



2 Locate the following points on the coordinate plane, then find:

A (5 , -2) , B (1 , 6), C (5 , 4) , D (-5 , 6),

E(5 , -5) , F (1 , 4)

The length of AC

= .... units.

The length of BD

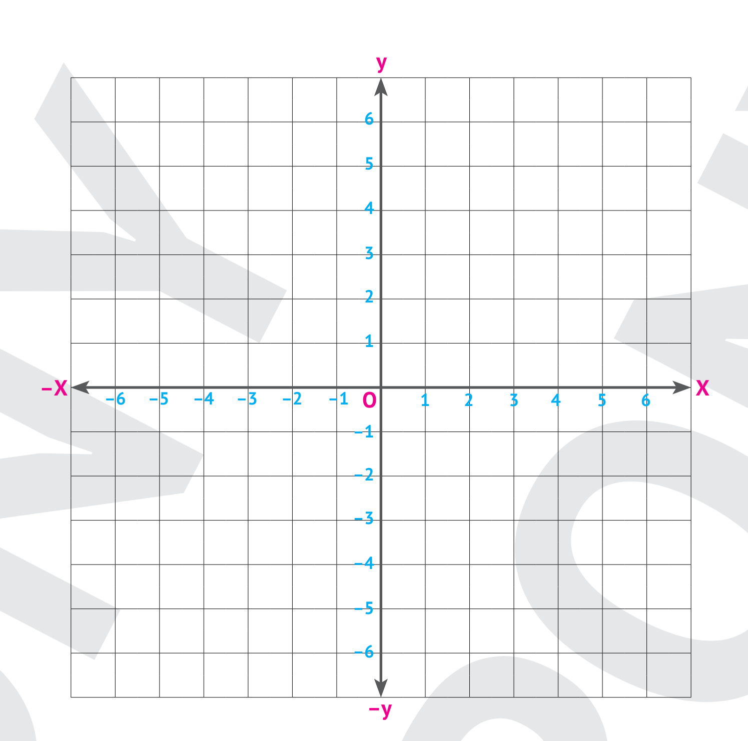
= .... units.

The length of CF

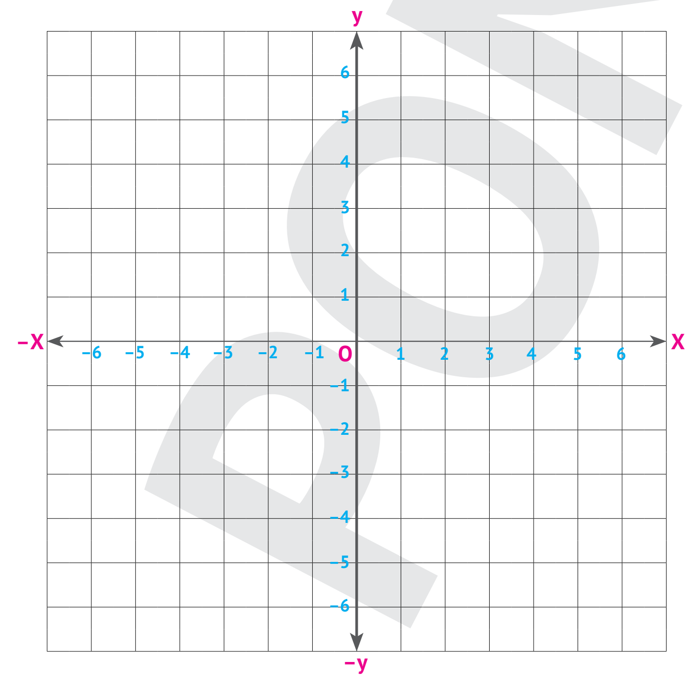
= .... units.

The length of EC

= .... units.

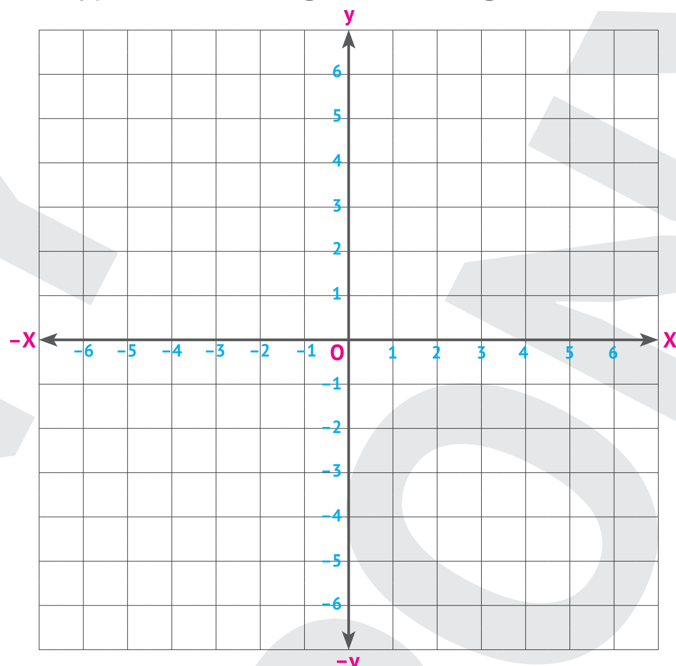


3 The point (−4 , −3) is a vertex of a rectangle with sides 2 units wide and 3 units long. Determine another 3 points to complete the rectangles.



....

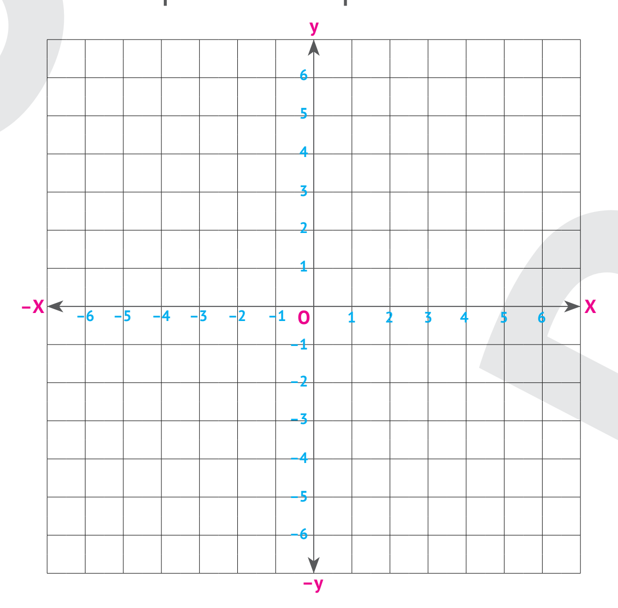
4 Ahmed has drawn a shape with the coordinate points (3 , −5), (−1 , -5), and (−1 , 6). Write the type of the triangle according to the measure of its angles.



....

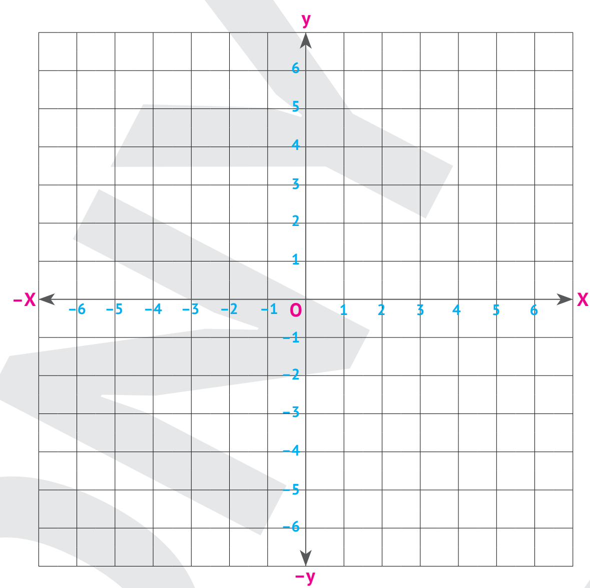
5 By using the identified point on the coordinate plane, determine the other points to create the required geometrical shapes:

The point (0 , −2) is a vertex of square 4 unit length. Determine another 3 points to complete the square.



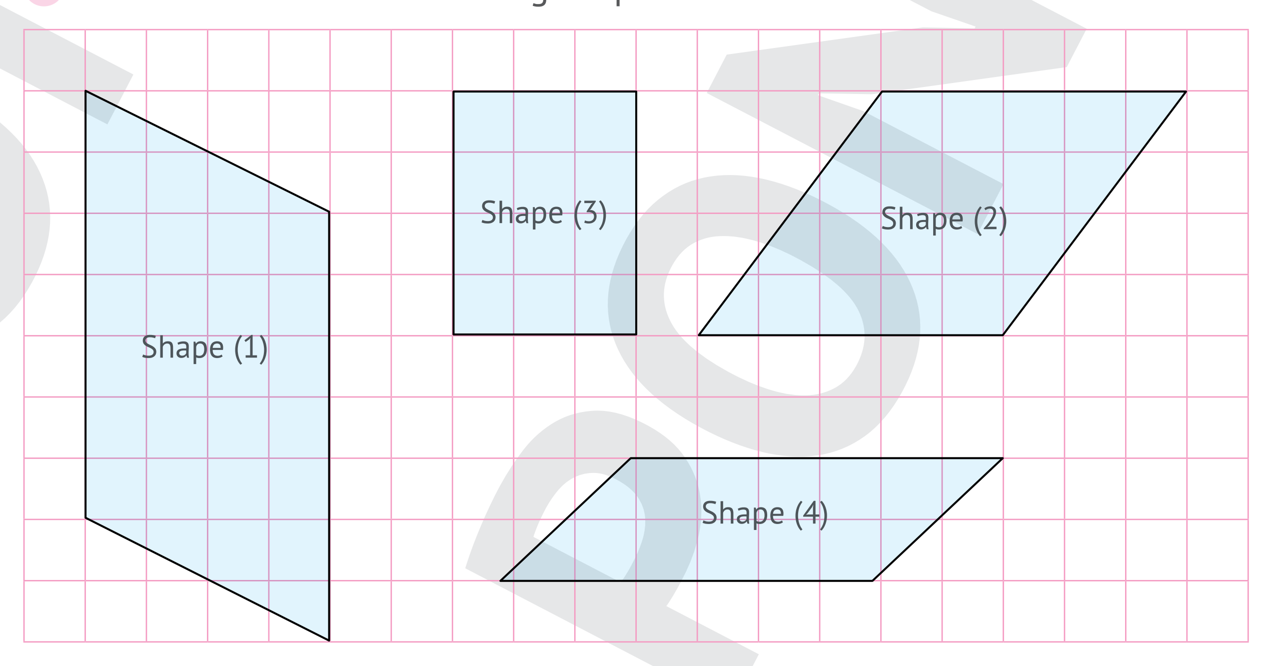
....

6 Using graph paper, plot the points (2 , 1) , (5 , 1) and (5 , 4) and connect them. Does this figure form a right angle? If yes, what are the coordinates of the vertex of the right angle?



....

7 Find the area of the following shapes:



a The area of shape (1) = ... = ... square units.

b The area of shape (2) = ... = ... square units.

c The area of shape (3) = ... = ... square units.

d The area of shape (4) = ... = ... square units.

8 A parallelogram has an area of 84 cm^2, and its base length is 12 cm. Calculate its corresponding height.

....

....

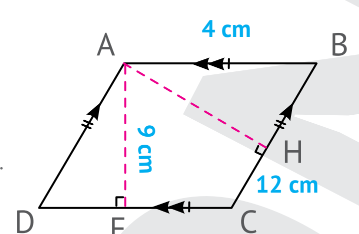
9 Which is greater in area: A square whose side length is 6 cm or a rectangle with dimensions of 9 cm and 3 cm?

....

....

10 According to the opposite shape:

Find the length of AH.



....

....

11 A triangle has a base length of 20 cm and a corresponding height of 7 cm. Find its area.

....

....

12 A triangle has an area of 45 cm^2, and its base is 9 cm. Find the corresponding height.

....

....

13 Which is greater in area:

A triangle whose base length is 2.4 dm and its corresponding height is 5 cm, or a triangle whose base length is 12 cm and its corresponding height is 8 cm?

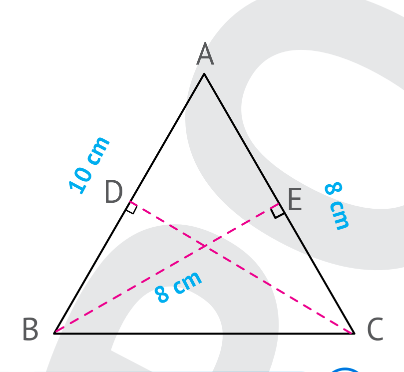
....

....

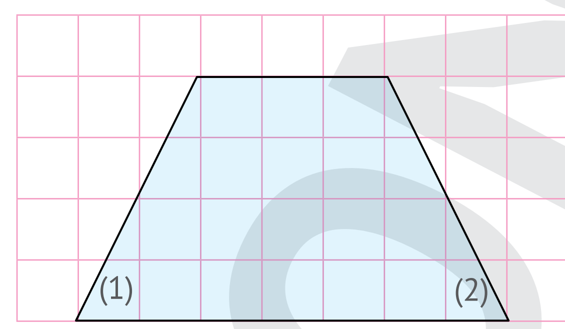
14 According to the following triangle,

find the length of CD.





15 Find the area of the following trapezium:



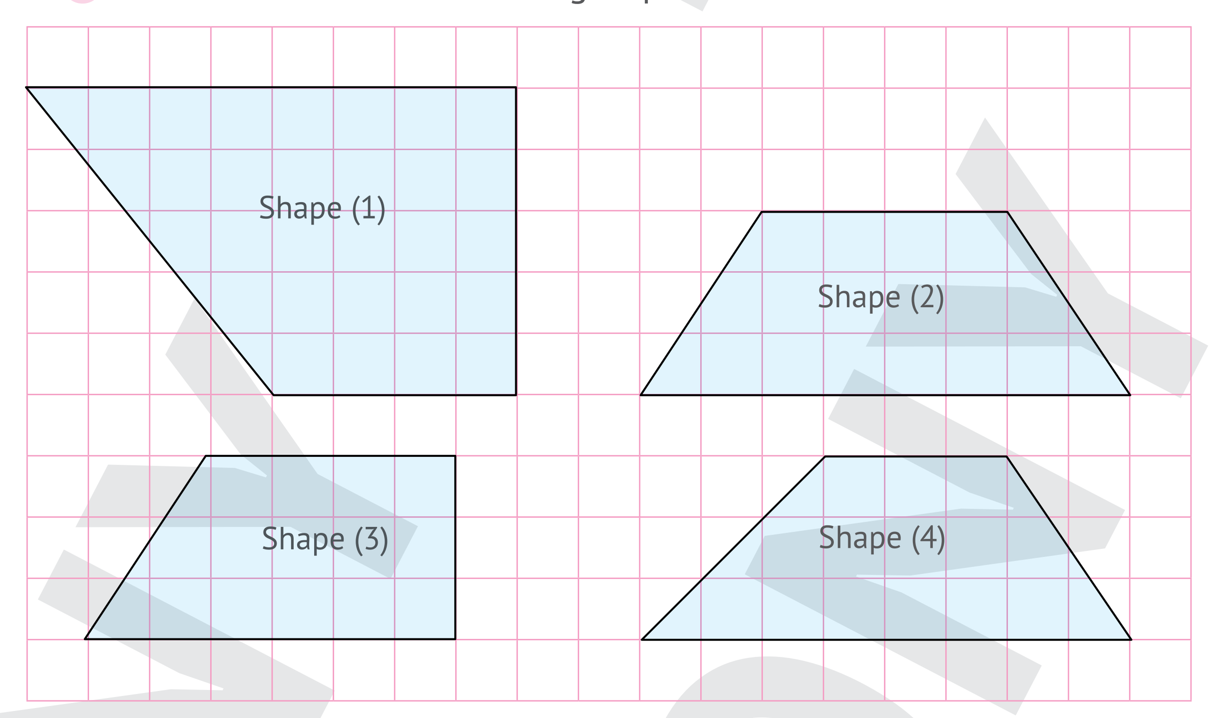
a The area of triangle (1) = ... = ... square units.

b The area of triangle (2) = ... = ... square units.

c The area of rectangle = ... = ... square units.

d The area of trapezium = ... = ... square units.

16 Find the area of the following trapeziums:



a The area of shape (1) = ... = ... square units.

b The area of shape (2) = ... = ... square units.

c The area of shape (3) = ... = ... square units.

d The area of shape (4) = ... = ... square units.

17 A rectangular prism has dimension of 7 cm, 5 cm, and 3 cm. Find the surface area.

....

18 A tank in the shape of a cube, its edge length is 10 cm. Find:

a The area of one face: ....

b The surface area: ....

19 Which is greater in surface area: A cube of edge length is 9 cm, or a cuboid with dimensions of 11 cm , 6 cm and 2 cm?

....

....

20 In the following square pyramid:



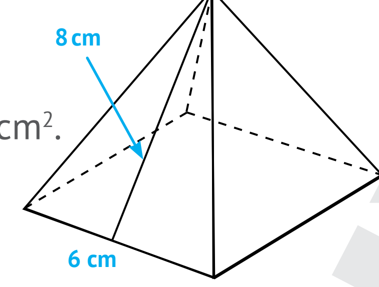
- The area of base = ... = ... cm^2.



- The area of the triangular face = ... = ... cm^2.



- Surface area = ... + ... = ... cm^2.



....

21 In the following square pyramid:

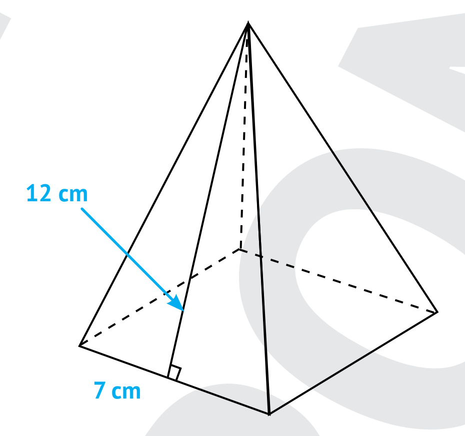
- The area of base

= .... cm^2.



- The area of the triangular face

= .... cm^2.



- Surface area = ... + ... = ...cm^2.

22 Murad made a square-based pyramid from wood. If the side of the square is 4 cm, and the height of the triangular face is 8 cm. Calculate the surface area of the box.

....

....

23 Using the opposite figure, find the surface area.

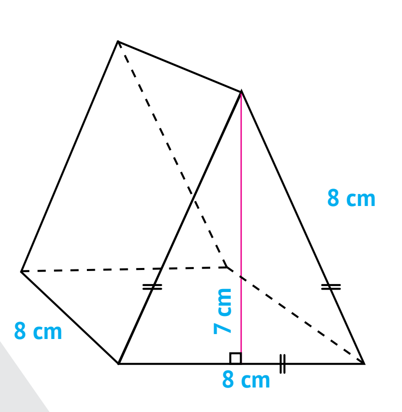
....

....

13 cm
11 cm
12 cm
5 cm

24 Find the surface area of the following:

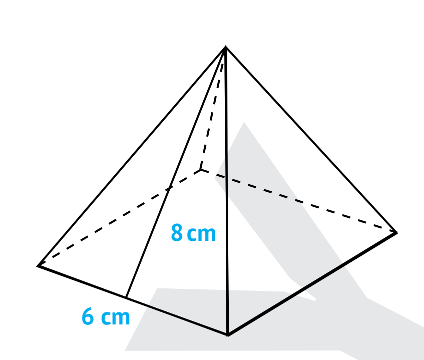




Surface area = ...

....

b

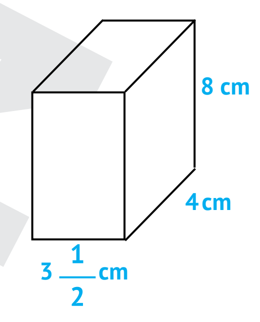


Surface area = ...

....

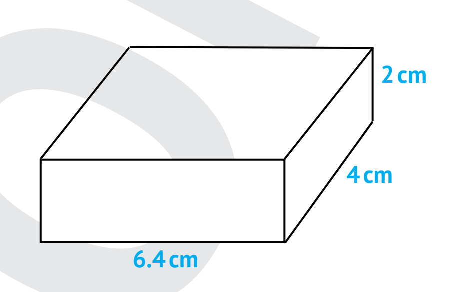
25 Find the volume of the following solids:

a



Volume: ....

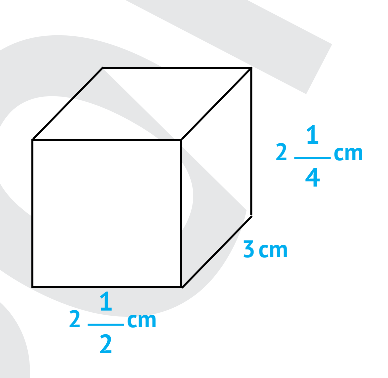




Volume: ....

26 Find the volume of the following solids:

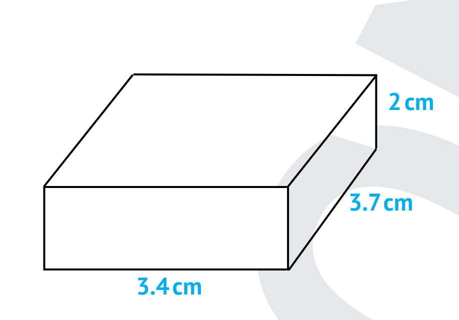
a



Actual volume: ....

Estimating volume = ...

b



Actual volume: ....

Estimating volume = ...

27 A cuboid with dimensions of $4\frac{1}{2}$ cm, 8 cm, and 2.5 cm. If one of its dimensions has been doubled, find the volume of the new cuboid.

....

28 A swimming pool with dimensions of 5 m, 4 m, and 2 m. If its dimensions have been doubled, then find the new volume.

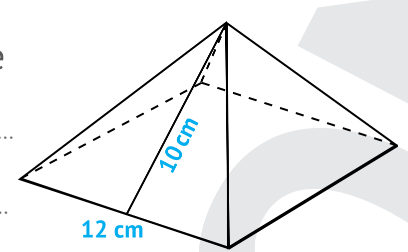
....

29 If the volume of a cuboid is 810 cm^3, and its height is 10 cm, find its base area. ....

....

30 In the opposite square pyramid, calculate the surface area. ....

....



31 If the base area of a cuboid is 36 cm^2, and its height is 5 cm, find the volume of the cuboid.

....

Final Revision Guide Answers

Theme 3

Units 8, 9&10

First

1. $\frac{1}{9}$
2. $\frac{7}{2}$
3. 2
4. $\frac{4}{3}$
5. $\frac{1}{2}$
6. $\frac{2}{3} \times 5$
7. $\frac{4}{7} \div \frac{4}{5}$
8. 1
9. >
10. $\frac{3}{5}$
11. $\frac{1}{6}$
12. $1\frac{1}{4}$
13. 1.56
14. 450
15. 7
16. 3 : 8
17. 7 : 4
18. $\frac{3}{7}$
19. 4 : 1
20. 600
21. 30
22. $\frac{5}{15}$
23. $\frac{10}{30}$
24. $\frac{9}{17}$
25. 300
26. 3 : 1
27. $\frac{3}{4}$
28. 9
29. 7 : 5
30. $\frac{35}{25}$
31. not equivalent ratios
32. 1 : 2
33. 20
34. 4
35. 20 : 45
36. 35
37. 2
38. $\frac{12}{15}$, $\frac{16}{20}$
39. 5
40. 8
41. 25
42. 40
43. 3 : 1
44. equivalent ratios
45. 20
46. 17
47. 7
48. 80
49. =
50. 400
51. 530
52. 700
53. 25
54. 125
55. 50
56. 270
57. 56
58. its three-tenths
59. 600
60. 2,400
61. 784
62. 264
63. 25
64. 34
65. 610

Second

1. $\frac{1}{6}$
2. $\frac{5}{8}$
3. 7
4. zero
5. $\frac{7}{13}$
6. $\frac{1}{2}$
7. $\frac{5}{18}$
8. 5.3
9. 8.25
10. 0.0006
11. 420
12. 120
13. $\frac{7}{16}$
14. $6 \times \frac{7}{5}$
15. 100
16. 1.84
17. $\frac{3}{2}$
18. $\frac{4}{15} \times \frac{3}{2}$
19. 2 : 3
20. 1 : 4
21. 120
22. 5 , 7
23. 136
24. 1 : 1
25. 36
26. 6
27. 17
28. 9
29. B X C
30. 5
31. 9, 4, 15, 10
32. 4
33. 6
34. 72
35. 20
36. 0.2
37. 16.8
38. 0.715
39. 92
40. 29
41. 215
42. 300
43. 150
44. 63%
45. 25
46. 600
47. 3
48. 90%
49. 3
50. 91

Third

1. The length of each piece of pipe $= \frac{5}{7} \div 15 = \frac{1}{21}$ m.
2. The number of friends $= 12 \div \frac{2}{3} = 18$ friends.
3. The share of each friend $= \frac{8}{9} \div 3 = \frac{8}{27}$ kg.
4. The number of children $= 18 \div \frac{2}{3} = 27$ children.

5 The price of each meter = 214.2 ÷ 9 = 23.8 LE.

6 The consumption of fuel = 280 ÷ 4 = 70 liters/month.

7 Murad paid = (3 X 4.75) + (5 X 1.25) = 20.5 LE.

8 Mark paid = 16 X 5.5 = 88 L.E

9 ⓐ 1 : 2 ⓑ 1 : 3 ⓒ 2 : 3

10 Ahmed walks = 28 ÷ 7 = 4 km/day

11 ⓐ 6 , 3 , 6 ⓑ 4 , 3 , 500

12 ⓐ 250 ⓑ 9

13 ⓐ 25 ⓑ 60

14 X = 4

15 Laine's rate = $\frac{3}{2}$,

Omar's rate = $\frac{9}{5}$; they aren't reading in equivalent ratios.

16 First: price of each can = 36 ÷ 8 = 4.5 LE.

Second: price of each can = 55.25 ÷ 13 = 4.25LE, so 13 cans of 55.25 better are better.

17 ⓐ 12 trees ⓑ 240 minutes = 4 hours

18 1, 12, 4, 7

19 He uses 2.5 cups of flour per loaf.

20 Rate of factory (A) = 20 Lamp/hr

Rate of factory (B) = 16 Lamp/hr, so factory (A) has a better rate of production.

21 Price of each kg = 15 ÷ 5 = 3 LE,

so the price of 7 kg = 3 x 7 = 21 LE.

22 Speed = $\frac{15 \text{ km}}{2.5 \text{ hr}} \times \frac{1{,}000 \text{ m}}{1 \text{ km}} \times \frac{1 \text{ hr}}{60 \text{ min}}$

= 100 m/min.

23 $\frac{54 \text{ km}}{\text{hr}} \times \frac{1{,}000 \text{ m}}{1 \text{ km}} \times \frac{1 \text{ hr}}{60 \text{ min}}$ = 900 m/min.

24 Percentage of boys = 33%

25 The capacity of the tank = 360 ÷ $\frac{30}{100}$

= 1,200 liters.

26 ⓐ (700 ÷ 4,000) x 100 = 17.5% ⓑ 82.5%

27 The saved money = 140,000 X $\frac{10}{100}$

= 14,000 LE.

28 The length of the shrunken cloth = 28 X $\frac{7}{100}$ = 1.96 m, then the length of the cloth after shrinking = 28 – 1.96 = 26.04 m.

29 10% of 5,400 = 540 LE.

The total price of the fridge = 5,400 + 540

= 5,940 LE.

30 ⓐ The money saved = 20,800 X $\frac{20}{100}$

= 4,160 LE.

ⓑ The sale price = 20,800 – 4,160

= 16,640 LE.

Theme 4

Units 11, 12&13

First

1 (–4 , –3)	2 –1	3 ($1\frac{1}{4}$, 0)
4 (0 , –7)	5 (–1 , 9)	6 itself
7 (2 , 9)	8 (0 , 0)	9 4
10 11	11 horizontal line	
12 vertical line	13 rhombus	
14 rectangle	15 square	16 >
17 14	18 28	19 6
20 <	21 3	22 30
23 3	24 5	25 $\frac{1}{2}$ b x h
26 6	27 20	

28 (2 x 3)+[$\frac{1}{2}$ (3 x 3)]

29 (4 x 1) + [$\frac{1}{2}$ (4 x 1)] + [$\frac{1}{2}$ (4 x 1)]

30 4	31 68	32 9
33 122	34 2 X (10 + 50 + 20)	
35 s^2	36 6 : 1	37 158
38 100	39 80	40 5
41 1,620	42 4	43 1 : 2
44 6 s^2	45 volume	46 720
47 6	48 180	

49 2 X (56 + 24 + 21)

50 180	51 5

Second

1 (5 , 2)	2 (7 , -1)	3 fourth

Guide Answers

4 4	5 y-axis	6 (2 , 4)
7 y-axis	8 zero	9 9
10 6	11 5	12 closer
13 (-2 , 3)	14 (2 , 5)	15 S X S
16 W X L	17 L X h	18 10
19 35	20 54	21 9
22 shorter	23 longer	24 18
25 3	26 30	27 5
28 height	29 3	30 7
31 6 s^2	32 W X L X h	33 1 : 1
34 142	35 294	36 16
37 96	38 3	39 84
40 480	41 1 : 2	42 8 : 1

43 Base area + (Area of one face X 4)

44 9 45 4

Third

1 Answer by yourself.

2 AC = 6, BD = 6, CF = 4, and EC = 9

3 (−2 , −3) , (−2 , 0) , (-4 , 0) , (Answers may vary.)

4 Right triangle

5 (4 , 2) , (4 , −2) , (0 , −2) , (Answers may vary.)

6 Yes, (5 , 1)

7 a Shape (1) = 7 X 4 = 28 sq units.

b Shape (2) = 5 X 4 = 20 sq units.

c Shape (3) = 3 X 4 = 12 sq units.

d Shape (4) = 2 X 4 = 12 sq units.

8 Height = 84 ÷ 12 = 7 cm.

9 Area of the square = 6 x 6 = 36 cm^2.

- Area of the rectangle = 9 X 3 = 27 cm^2.

So, the area of the square is greater.

10 Area of the parallelogram ABCD = 4 x 9 = 36 cm^2.

- AH is the height of ABCD.
- Then, AH = 36 ÷ 12 = 3 cm.

11 Area of the triangle = $\frac{1}{2}$ x 20 x 7 = 70 cm^2.

12 Height = (2 X 45) ÷ 9 = 10 cm.

13 Area of the first triangle = $\frac{1}{2}$ x (2.4 x 10) x 5 = 60 cm^2.

Area of the second triangle = $\frac{1}{2}$ x 12 x 8 = 48 cm^2.

So, the area of the first triangle is greater.

14 Area of the triangle = $\frac{1}{2}$ x 8 x 8 = 32 cm^2.

CD is a height, CD = (2 x 32) ÷ 10 = 6.4 cm.

15 a The area of triangle (1) = 4 sq units.

b The area of triangle (2) = 4 sq units.

c The area of rectangle = 12 sq units.

d The area of of trapezium = 4 + 4 + 12 = 20 sq units.

16 a The area of shape (1) = 30 square units.

b The area of shape (2) = 18 square units.

c The area of shape (3) = 15 square units.

d The area of shape (4) = 16.5 square units.

17 Surface area = 2 (35 + 15 + 21) = 142 cm^2.

18 a Area of one face = 10 x 10 = 100 cm^2.

b The surface area = 6 x 100 = 600 cm^2.

19 Surface area of the cube = 6 x 92 = 486 cm^2.

Surface area of the cuboid = 2 x (66 + 12 + 22) = 200 cm^2. So, the cube is greater.

20
- The area of base = 6 x 6 = 36 cm^2.
- The area of the triangular face = $\frac{1}{2}$ x 6 x 8 = 24 cm^2.
- Surface area = 36 + (4 x 24) = 132 cm^2.

21
- The area of base = 7 x 7 = 49 cm^2.
- The area of the triangular face = $\frac{1}{2}$ x 7 x 12 = 42 cm^2.
- Surface area = 49 + (4 x 42) = 217 cm^2.

22 Area of the square-based pyramid =

(4 x 4) + ([$\frac{1}{2}$ x 4 x 8] x 4) = 80 cm^2.

23 Surface area = ($\frac{1}{2}$ x 5 x 12) + $\frac{1}{2}$ x 5 x 12)

+ 11 x 13 + 5 x 11 + 12 x 11 = 390 cm^2.

24 ⓐ Surface area = $(\frac{1}{2} \times 8 \times 7) + \frac{1}{2} \times 8 \times 7) + 8 \times 8 + 8 \times 8 + 8 \times 8 = 248 \text{ cm}^2$.

ⓑ Surface area = $6 \times 6 + [(\frac{1}{2} \times 6 \times 8) \times 4] = 132 \text{ cm}^2$.

25 ⓐ Volume = $3\frac{1}{2} \times 4 \times 8 = 112 \text{ cm}^3$.

ⓑ Volume = $6.4 \times 4 \times 2 = 51.2 \text{ cm}^3$.

26 ⓐ Actual volume = $2\frac{1}{4} \times 3 \times 2\frac{1}{2} = 14.85 \text{ cm}^3$.

- Estimating volume = $2 \times 3 \times 2 = 12 \text{ cm}^3$.

ⓑ Actual volume = $3.4 \times 3.7 \times 2 = 25.16 \text{ cm}^3$.

- Estimating volume = $2 \times 3 \times 3 = 18 \text{ cm}^3$.

27
- The volume of the original cuboid = $4\frac{1}{2} \times 8 \times 2.5 = 90 \text{ cm}^3$.
- The volume of the new cuboid = $90 \times 2 = 180 \text{ cm}^3$.

28 The volume of the original swimming pool = $5 \times 4 \times 2 = 40 \text{ m}^3$.

- The volume of the new swimming pool = $40 \times 8 = 320 \text{ m}^3$.

29 The area of the base = $810 \div 10 = 81 \text{ cm}^2$.

30 Surface area = 384 cm^2.

31 Volume of the cuboid = $36 \times 5 = 180 \text{ cm}^3$.

General Revision on Unit 8

6th prim.

1 Choose the correct answer.

1. From the opposite model,

1 whole					1 whole				
$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$

$2 \div \frac{1}{5} =$ ______

A. $\frac{2}{5}$ B. $\frac{5}{2}$ C. $\frac{1}{10}$ D. 10

2. The reciprocal of 7 is ______

A. 7 B. 1 C. $\frac{1}{7}$ D. 0

3. $\frac{4}{7} \times$ ______ $= 1$

A. $\frac{4}{7}$ B. $\frac{7}{4}$ C. $\frac{41}{7}$ D. $\frac{7}{41}$

4. $\frac{4}{7} \div$ ______ $= 1$

A. $\frac{4}{7}$ B. $\frac{7}{4}$ C. $\frac{41}{7}$ D. $\frac{7}{41}$

5. ______ $\div \frac{2}{3} = 9$

A. 6 B. $\frac{27}{2}$ C. $8\frac{1}{3}$ D. 12

6. $\frac{2}{3}$ of 6 ◯ $\frac{1}{5}$ of 25

A. $<$ B. $=$ C. $>$

7. If $807 \times 64 = 51,648$, then

a. $516.48 \div 0.64 =$ ______

A. 87 B. 807 C. 8.07 D. 80.7

b. $80.7 \times 6.4 =$ ______

A. 51,648 B. 51.648 C. 51.468 D. 516.48

c. $51,648 \div 0.807 =$ ______

A. 6.4 B. 64 C. 64,000 D. 6,400

d. $807 \times 0.064 =$ ______

A. 51.648 B. 51,648 C. 51.468 D. 516.48

e. $51.648 \div 64 =$ ______

A. 807 **B.** 0.807 **C.** 8.07 **D.** 8.70

8. $\frac{4}{5} \div$ ______ $= \frac{2}{3}$

A. $\frac{2}{15}$ **B.** $1\frac{1}{5}$ **C.** $\frac{12}{15}$ **D.** $\frac{5}{6}$

9. From the opposite model,

$\frac{3}{8} \div \frac{7}{10} =$ ______

A. $\frac{15}{28}$ **B.** $\frac{21}{80}$ **C.** $\frac{7}{8}$ **D.** $\frac{3}{10}$

10. $0.751 \times 0.01 =$ ______

A. 7.51 **B.** 0.751 **C.** 0.0751 **D.** 0.00751

11. Any number multiplied by its reciprocal equals ______

A. 3 **B.** 2 **C.** 1 **D.** 0

12. $7 \div \frac{7}{9} = 7 \times$ ______

A. 9 **B.** $\frac{9}{7}$ **C.** 7 **D.** $\frac{49}{9}$

13. $\frac{3}{4} \div 6 =$ ______

A. $\frac{1}{8}$ **B.** $\frac{18}{4}$ **C.** $\frac{2}{9}$ **D.** 8

14. $13.5 \times 4.5 =$ ______

A. 0.675 **B.** 67.05 **C.** 6.075 **D.** 60.75

15. $0.55 \div 0.11 =$ ______ $\div 11$

A. 55 **B.** 550 **C.** 5.5 **D.** 0.055

16. $13.5 \div 4.5 =$ ______

A. 9 **B.** 7 **C.** 3 **D.** 18

17. .... $\times \frac{5}{7} = \frac{2}{3}$

A. $\frac{15}{14}$ B. $\frac{14}{15}$ C. $\frac{10}{21}$ D. $\frac{7}{10}$

18. 0.43×0.1 ◯ $0.43 \div 0.1$

A. $<$ B. $=$ C. $>$

19. The reciprocal of $1\frac{3}{5}$ is ....

A. $\frac{5}{8}$ B. $1\frac{2}{5}$ C. $\frac{8}{5}$ D. 1

20. The reciprocal of the number .... is $1\frac{2}{3}$.

A. $1\frac{3}{2}$ B. $\frac{5}{3}$ C. $\frac{3}{5}$ D. $\frac{3}{2}$

21. $8 \div \frac{6}{7} =$ ....

A. $\frac{48}{7}$ B. $9\frac{1}{3}$ C. $\frac{8}{7}$ D. $9\frac{2}{3}$

22. $\frac{3}{8}$ of $\frac{1}{3} =$ ....

A. $\frac{1}{8}$ B. 8 C. $\frac{3}{11}$ D. $\frac{9}{8}$

2 Complete the following.

1. The reciprocal of 1 is ....

2. From the opposite model,

$3 \div \frac{2}{5} =$ ....

1 whole					1 whole					1 whole				
$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$

3. $\frac{2}{5}$ of $35 =$ ....

4. $\frac{2}{5} \div \frac{4}{15} =$ ....

5. $\frac{4}{9} \times$ .... $= \frac{1}{6}$

6. If 4.902 ÷ 0.86 = 5.7 , then

a. $57 \times 86 =$ .... b. $5.7 \times 8.6 =$ ....

c. $0.57 \times 0.86 =$ .... d. $4,902 \div 86 =$ ....

7. The number .... has no reciprocal.

8. $0.8 \times 0.2 =$ .... and $0.8 \div 0.2 =$ ....

9. .... $\div 2.15 = 12,000 \div 215$

10. The number of $\frac{4}{7}$'s in 28 is ....

11. Half of $\frac{3}{5}$ is ....

12. From the opposite model,

$\frac{2}{3} \div \frac{3}{4} =$ ....

$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	
$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$

13. If $\frac{2}{7} \times m = \frac{2}{3}$, then m = ...

14. If $\frac{2}{7} \div m = \frac{2}{3}$, then m = ...

3 Answer the following.

1. A box of table tennis balls weighs $\frac{5}{3}$ of a kg. If each ball weighs $\frac{5}{27}$ of a kg. **how many balls are there in the box ?**

2. If the price of one meter of cloth is 36.5 L.E. **Find the price of 3.5 meters.**

3. Ali has 30 liters of juice. He distributed them into small bottles of $\frac{3}{4}$ liter each. **How many bottles did he use ?**

4. Nora bought 8 books for 361.6 L.E. **What is the price of each book ?**

5. Use model to divide, then write the quotient.

a. $3 \div \frac{2}{3}$

b. $\frac{1}{3} \div 2$

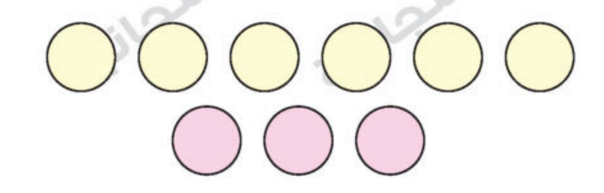
c. $\frac{4}{5} \div \frac{3}{4}$

General Revision on Unit 9



1 Choose the correct answer.

1. The ratio between yellow circles and red circles in simplest form is ....



A. 3 to 1 B. $\frac{1}{2}$ C. 3 : 6 D. 2 to 1

2. If $\frac{a}{b} = \frac{c}{d}$, then which of the following is true ?

A. $a \times b = c \times d$ B. $a \times c = b \times d$ C. $c \times b = a \times d$ D. $a \times d = b \times d$

3. If $\frac{3}{5}$ is equivalent to $\frac{9}{x+6}$, then x = ...

A. 15 B. 9 C. 21 D. 5

4. The opposite table shows the ratio between boys and girls, then :

Boys	Girls	Total
4	3	A
B	C	98

a. The value of A = ...

A. 7 B. 12 C. 1 D. $\frac{4}{3}$

b. The value of B – C = ...

A. 1 B. 14 C. 56 D. 42

5. The opposite tape diagram represents the ratio between boys and girls. If the difference between them is 7 , then the number of boys is ....



A. 49 B. 7 C. 21 D. 28

6. In the opposite figure :

A B C D E (number line)

BC : AE = ...



A. $\frac{2}{5}$ B. $\frac{1}{4}$ C. $\frac{1}{2}$ D. $\frac{2}{3}$

7. The ratio between two sides of an equilateral triangle is ....

A. 1 : 1 **B.** 1 : 2 **C.** 1 : 3 **D.** 3 : 1

8. Which of the ratios in each pair are equivalent ?

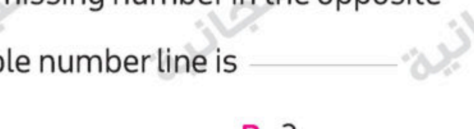
A. $\frac{1}{2}$ and $\frac{2}{6}$ **B.** $\frac{8}{6}$ and $\frac{12}{15}$ **C.** $\frac{5}{15}$ and $\frac{7}{17}$ **D.** $\frac{6}{9}$ and $\frac{10}{15}$

9. Souzan bought 2 kg of orange for 30 L.E. How much money will she pay to buy 3 kg ?

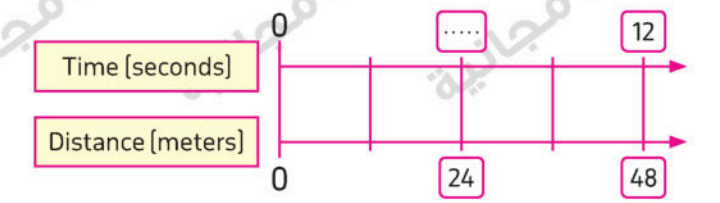
A. 15 **B.** 20 **C.** 45 **D.** 75

10. If the ratio between two numbers is 2 : 3 and the first number is 12, then the second number is ....

A. 18 **B.** 8 **C.** 36 **D.** 13



11. The missing number in the opposite double number line is ....



A. 2 **B.** 3

C. 4 **D.** 6

12. The next ratio of 5 : 7 , 10 : 14 , 20 : 28 , ...



A. $\frac{30}{56}$ **B.** $\frac{25}{40}$ **C.** $\frac{40}{56}$ **D.** $\frac{56}{40}$

13. If $\frac{X}{3} = \frac{27}{X}$, where X is a natural number, then X = ...

A. 81 **B.** 27 **C.** 9 **D.** 3

14. If $\frac{4}{X}$ is equivalent to $\frac{16}{20}$, then X – 4 = ...

A. 1 **B.** 5 **C.** 16 **D.** 12

15. If 1 : y = 0.5 , then y = ...

A. 2 **B.** 3 **C.** 4 **D.** 5

16. To find the simplest form of the ratio 20 : 30, we divide the two terms by ....

A. 5 **B.** 2 **C.** 10 **D.** 20



17. Habiba has 10 pencils, 15 pens and 12 notebooks. Which statement is NOT true ?

A. The ratio of pencils to pens is 2 : 3

B. The ratio of pens to notebooks is 5 : 4

C. The ratio of notebooks to pencils is 6 : 5

D. The ratio of pens to pencils is 5 : 6

18. Which of the following comparisons is showing a ratio ?

A. Four students like music than arts.

B. Four more students like music than arts.

C. Fewer students like music than arts.

D. For every student who likes music, Four students like arts.

19. Which ratio of the following equals to a seventh ?

A. $\frac{3}{15}$ B. $\frac{2}{10}$ C. $\frac{2}{14}$ D. $\frac{7}{21}$

20. If 3 a = 5 b , then a : b = ... : ....

A. 3 : 5 B. 3 : 8 C. 8 : 3 D. 5 : 3

2 Complete the following.

1. 200 : 250 = ... (in simplest form)

2. In the ratio 7 : 8 , the first term is ....

3. If the ratio between boys and girls is 3 : 2 , then the ratio between girls to boys is .... to ....

4. The ratio between a and b is 3 : 4 and a + b = 28 then b = ...

5. $\frac{\dots}{4} = 3$

6. From the opposite equivalent ratios,

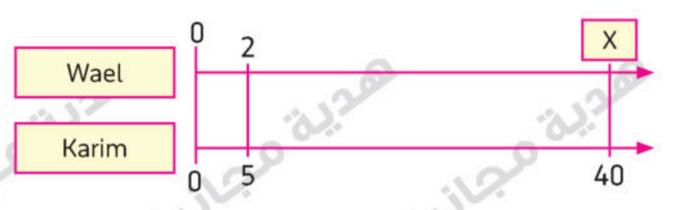
c + d = ...

3	15	d
5	c	15

7. The opposite tape diagram represents the ratio .... : ....



8. The opposite double number line represents the ratio between the money with Wael and Karim, If Karim has 40 L.E., then Wael has ________ L.E.



9. If $\frac{3}{X} = \frac{1}{2}$, then X = ________

3 Answer the following.

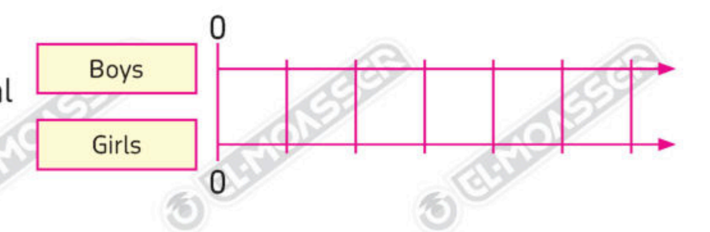
1. If Mostafa has 60 L.E. and Ali has 30 L.E. Find :
   a. The ratio between what Mostafa has and what Ali has in simplest form.
   b. The ratio between what Ali has and the total sum of money in simplest form.

2. Complete the table for a ratio 6 cats and 5 rabbits.

Total	Cat	Rabbit
(B)	(A)	5
(D)	30	(C)
88	(E)	(F)

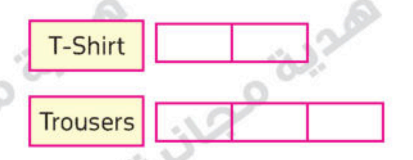
3. Sameh bought 4 kg of banana, he paid 60 L.E. **How much money will he pay to buy 6 kg ?**

4. If the ratio between the number of boys to the number of girls is 3 : 4 and the total number of boys and girls is 42 pupils, then find.



   a. The number of boys.
   b. The difference between them.

5. If the ratio between the price of a T-shirt and the price of a trousers is 2 : 3 and the difference between then is 100 L.E. find.



   a. The price of the trousers.
   b. The sum of prices of both.

6. Find the value of X in each of the following.

   a. $\frac{35}{40} = \frac{X}{8}$
   b. $\frac{X+1}{9} = \frac{64}{72}$
   c. $\frac{4}{X-2} = \frac{12}{15}$
   d. $\frac{X}{32} = \frac{14}{16}$



1 Choose the correct answer.

1. 5 : 20 = ... %

A. 50 B. 25 C. 20 D. 5

2. Which of the following is a unit rate ?

A. 50 L.E. per 4 kg. B. 2 liters for one bottle.

C. 4 spoons of sugar for 2 cups. D. 100 km per 5 hours.

3. 2.4 L × .... = 2,400 mL

A. $\frac{1 \text{ mL}}{1,000 \text{ L}}$ B. $\frac{1,000 \text{ L}}{1 \text{ mL}}$ C. $\frac{1 \text{ L}}{1,000 \text{ mL}}$ D. $\frac{1,000 \text{ mL}}{1 \text{ L}}$

4. From the opposite table,
the value of the unknown = ...

Whole	Part	Percent
Unknown	40	10%

A. 4 B. 400

C. 100 D. 140

5. 120 m per min = ... cm per sec.

A. 1,200 B. 200 C. 720 D. 12,000

6. If the price of a T.V. set is 16,000 L.E., then $\frac{1}{2}$ % of it's price equals ....

A. 160 B. 80 C. 8,000 D. 800

7. By using the opposite double number line,
the unit rate is ....



A. 2 hours per km B. 300 km per 2 hours

C. 150 km per 2 hours D. 150 km per hour

8. 35% of 70 ◯ 70% of 35

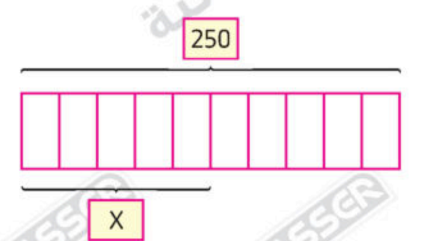
A. < B. = C. >

9. A car consumes $\frac{1}{7}$ liter of benzen to cover 1 km, then it covers ______ km per liter.

A. 1　　**B.** 7　　**C.** 10　　**D.** 70

10. From the opposite tape diagram,

X = 



A. 250　　**B.** 100

C. 125　　**D.** 25

11. 10% of 36 kg = ______ gram.

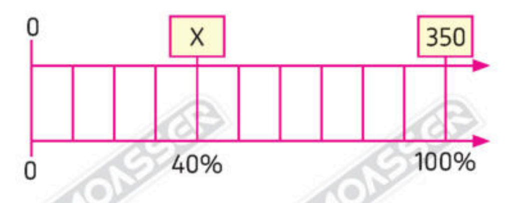
A. 1.8　　**B.** 3.6　　**C.** 360　　**D.** 3,600

12. Which of the following is NOT a conversion factor ?

A. 1 min = 60 sec　　**B.** $\frac{1{,}000 \text{ mL}}{1 \text{ L}}$　　**C.** $\frac{1 \text{ year}}{12 \text{ months}}$　　**D.** $\frac{1{,}000 \text{ km}}{1 \text{ m}}$

13. From the opposite double number line,

X = ______



A. 35　　**B.** 140

C. 70　　**D.** 175

14. Which of the following is the best buy ?

A. 36 L.E. for 6 kg　　**B.** $\frac{1}{5}$ kg per L.E.

C. 3 kg for 21 L.E.　　**D.** $\frac{1}{2}$ kg per L.E.

15. If the price of a mobile is 3,000 L.E. and it has a discount 15%, then the discount is ______ L.E.

A. 150　　**B.** 300　　**C.** 450　　**D.** 750

16. 1 – 30% = ______

A. 70　　**B.** $\frac{7}{10}$　　**C.** 29%　　**D.** 0.07

17. The percent of girls in a school is 54%, then the percent of boys is ______ %

A. 56 B. 0.46 C. 4.6 D. 46

18. Sameh ate 65% of a pizza, so he ate ______ half the pizza.

A. exactly B. more than C. less than

19. $\frac{25 \text{ km}}{1 \text{ hr}} = \frac{____ \text{ m}}{1 \text{ hr}}$

A. 250 B. 2,500 C. 25,000 D. 250,000

20. 100% of 50 L.E. = ______ L.E.

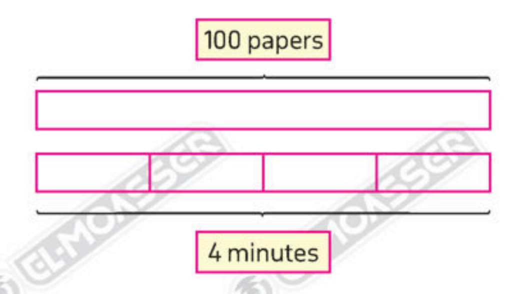
A. 5 B. 10 C. 25 D. 50

21. 25% of a number= ______ % of half of the same number.

A. 12.5 B. 25 C. 50 D. 75

2 Complete the following.

1. From the opposite tape diagram, the unit rate of the printer is ______ papers per min.



2. 3,600 seconds = ______ hour.
3. A man saved 180 L.E. in 3 days, then he saved ______ L.E. per day.
4. 30 % of 50 liters = ______ liters.
5. 24 out of 80 = ______ %
6. The price of 4 notebooks is 36 L.E., then ______ L.E. for each notebook.
7. If the length of a piece of cloth is 648 cm, then its length equals ______ meters.
8. $1\frac{1}{4}$ = ______ %
9. 100 % – [43% + 35%] = ______ %
10. If 7% of the students are absent, then ______ % of them are present.
11. If $\frac{X}{5}$ = 60 %, then X = ______

12. From the opposite table, the value of the unknown = ...

Whole	Part	Percent
570	Unknown	20%

13. $10\frac{1}{2}\% = 10\% +$ .... $\times 1\%$

14. 560 L.E. weekly = ... L.E. daily.

15. If the price of 2 kg of cheese is 400 pounds, then the price of 3 kg is .... pounds.

16. 150 m per min = ... m per hour.

17. $55\% = \frac{\dots}{20}$

18. If 25 % of a number is 125, then the number is ....

19. 5 % of 250 = 10% of ....

20. The percentage is a ratio its ....

21. $\frac{0.048 \text{ km}}{1 \text{ min.}} = \frac{\dots\dots \text{ m}}{\dots\dots \text{ hr}}$

22. 10% of a kilometer = ... m.

3 Answer the following.

1. Which is the longest : 4.52 m or 400 cm ?
2. The number of children in a nursery is 60 , if 40 % of them are vaccinated. **What is the number of the non-vaccinated children in this nursery ?**
3. The price of a T.V. set is 20,000 L.E. and the sales tax on the T.V. set is 15 %. **What is the price of the T.V. set after adding the tax ?**
4. If 3 oranges are used to get 2 cups of juice. **How many oranges are needed to get 6 cups of orange juice ?**
5. On most summer days, camels drink about 20,000 milliliters of water. **How many liters of water is that ?**
6. In a math exam, Omar got 70 % and Fares got 30 marks out of 50. **Find the ratio between the marks of Fares and Omar in simplest form.**

General Revision on Unit 11

6th prim.

1 Choose the correct answer.

1. The image of the point $(3, -4)$ by reflection across the y-axis is the point ....

   A. $(3, 4)$ B. $(-3, 4)$
   C. $(3, -4)$ D. $(-3, -4)$

2. The point A is located 2 spaces up from the origin and 3 spaces to the right. What ordered pair represents the point A?

   A. $(2, 3)$ B. $(-2, 3)$
   C. $(3, 2)$ D. $(2, -3)$

3. If $A(-3, 1)$ and $C(0, -2)$ and $\overline{AB} \perp \overline{BC}$, then the point B is ....

   A. $(0, 0)$ B. $(-3, -2)$
   C. $(-2, 0)$ D. $(-4, -2)$

4. From the opposite number line, the distance between A and B is .... units.



   A. 2 B. 4
   C. 6 D. -6

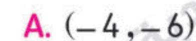
5. The point $(-2, -\frac{1}{2})$ lies in .... quadrant.

   A. 1^{st} B. 2^{nd}
   C. 3^{rd} D. 4^{th}

6. If $P(2, 0)$, $Q(0, 1)$, $R(-2, 0)$ and $S(0, -2)$ are plotted on the coordinate plane, then the points on the x-axis are ....

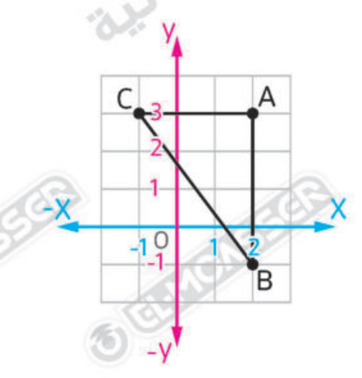
   A. P and Q B. Q and S
   C. Q and R D. R and P

7. If the point A $(-2,-3)$ moved 2 units to the right the 3 units up, then A will be ....



A. $(-4,-6)$ B. $(0,-6)$ C. $(-4,0)$ D. $(0,0)$

8. From the opposite figure.



a. The Coordinates of the point B are ....



A. $(2,3)$ B. $(2,-1)$

C. $(-1,2)$ D. $(2,-2)$

b. The distance between the point C and the point A is .... units.

A. 4 B. 3 C. -4 D. -3

c. The distance between the point C and x-axis is .... unit(s).

A. 1 B. 2 C. 3 D. 4

d. The point .... is the nearest point to y-axis.

A. $(2,3)$ B. $(2,-1)$ C. $(-1,3)$

e. The image of the point A by reflection across x-axis is ....

A. $(2,3)$ B. $(-2,3)$ C. $(-2,-3)$ D. $(2,-3)$

f. The type of the triangle ABC is ....

A. right triangle. B. acute triangle. C. obtuse triangle.

g. If the point C moved 4 units down and 3 units right then C will be ....

A. $(2,0)$ B. $(-5,2)$ C. $(3,6)$ D. $(2,-1)$

h. The point D which makes CABD is a rectangle is ....

A. $(-1,0)$ B. $(4,-1)$ C. $(-1,-1)$ D. $(0,0)$

i. The point D lies in .... quadrant.

A. first B. second C. third D. fourth

9. In the following figure, if AB = 8 units, then x = ________



A. 8 B. 10.5 C. 6.5 D. 5.5

10. What is the distance between the point C (2 , 5) and its image by reflection across y-axis ?

A. 2 units B. 4 units C. 5 units D. 10 units

2 Complete the following.

1. If the y-coordinate of a point is zero, then this point lies on ________ axis.

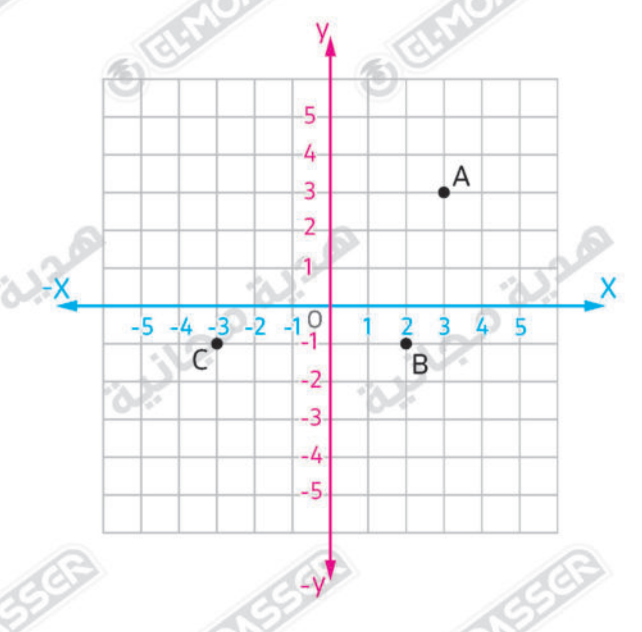
2. The point $(-2\frac{1}{4}, 2\frac{1}{4})$ lies in the ________ quadrant.

3. The distance between the two points (– 2 , 1) and (4 , 1) is ________ units.

4. If the x-coordinate of a point is positive and y-coordinate is negative, then the point lies in the ________ quadrant.

5. The image of the point (0 , 3) by reflection across x-axis is ________

6. From the opposite figure



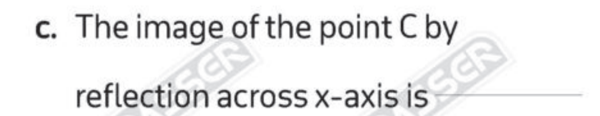
a. The coordinates of the points

A (____ , ____)

B (____ , ____)

C (____ , ____)

b. The distance between the point C and the point B is ________ units.



c. The image of the point C by reflection across x-axis is ________

d. If we moved the point A 5 units left and 3 units down, then A will be (____ , ____)

e. The distance between the point B and x-axis is ________ unit.

f. The type of the triangle ABC is ________ – angled triangle.

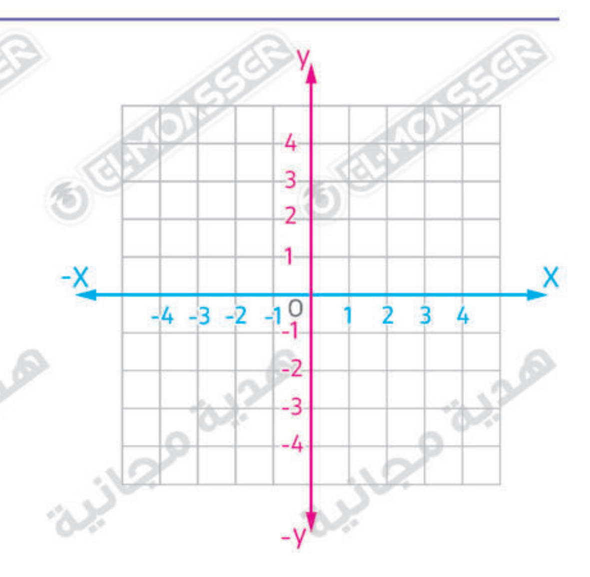
g. The coordinates of the point D which makes ABCD is a parallelogram are (______ , ______)

h. The image of the point D by reflection across y-axis is ________

3 Answer the following.

1. Graph the points A (1 , 3) and B (–3 , 3).

What are the coordinates of C and D if ABCD is a square and D lies in 4th quadrant ?



2. a. Write the ordered pairs

A (______ , ______) lies in ________ quadrant

B (______ , ______) lies in ________ quadrant

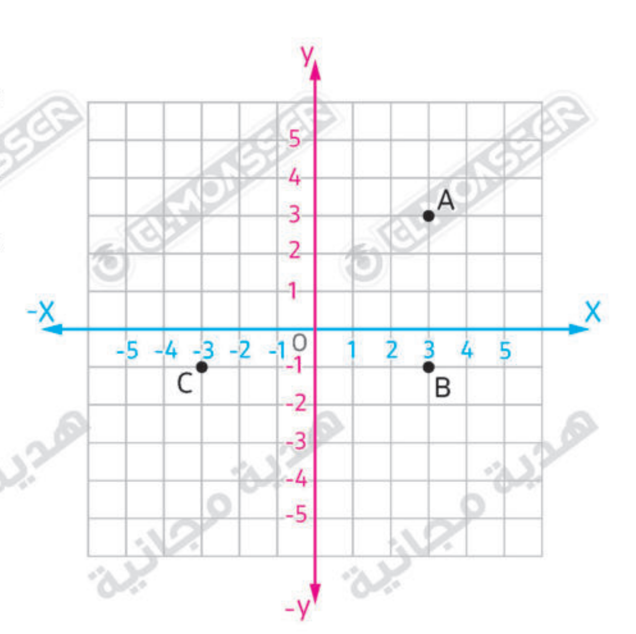
C (______ , ______) lies in ________ quadrant



b. The name of the figure ABC is ________

c. The point D is (______ , ______) such that ABCD is a rectangle.

d. Find the length of $\overline{AB}$ and $\overline{BC}$



e. Find the perimeter and the area of the rectangle.

3. Eman walks from a park located at (–2 , –3) to her house at (1 , –3). **How far did she walk ?**

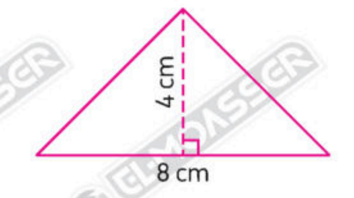
1 Choose the correct answer.

1. Area of a parallelogram = ...

   A. $\frac{b}{2} \times h$ B. $b \times \frac{h}{2}$ C. $\frac{1}{2} \times b \times h$ D. $b \times h$

2. The area of the opposite triangle

   =  cm^2



   A. 12 B. 32

   C. 24 D. 16

3. The area of the opposite trapezium

   =  square units.



   A. 12 B. 32

   C. 24 D. 16

4. The height of a rhombus whose area is 56 cm^2 and its side length 7 cm is .... cm.

   A. 8 B. 49 C. 63 D. 392

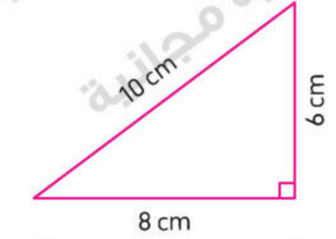
5. If the two base lengths of a parallelogram are 2.6 m and 1.3 m and its greater height is 2.4 m, then its area equals .... m^2

   A. 3.12 B. 1.56 C. 6.24 D. 3.12

6. The area of a square of side length 2.5 mm is .... mm^2

   A. 10 B. 3.125 C. 6.25 D. 5

7. The area of the opposite triangle is ....



   A. 24 cm^2 B. 30 cm^2

   C. 40 cm^2 D. 12 cm^2

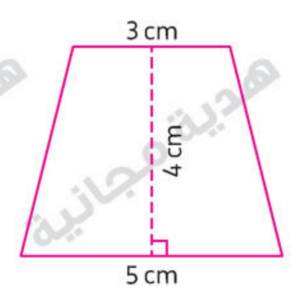
8. A parallelogram with area 12 cm^2 and base length 5 cm, then its corresponding height is  cm

   A. 60 B. 30 C. 7 D. 2.4

9. The area of the opposite trapezium

= ________ cm^2





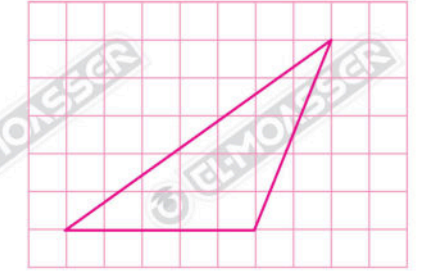
A. 12 **B.** 20

C. 16 **D.** 60

10. The area of the opposite triangle

equals ________ square units.







A. 25

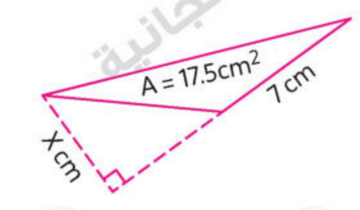
B. 12.5

C. 9

D. 17.5

11. From the opposite figure,

the value of X = ________ cm



A. 10.5 **B.** 2.5

C. 24.5 **D.** 5

12. The area of the rhombus whose perimeter is 36 cm and its height 6.2 cm

is ________ cm^2

A. 223.2 **B.** 111.6 **C.** 55.8 **D.** 27.9

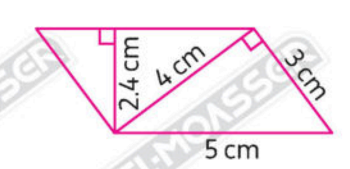
13. If the perimeter of an equilateral triangle is 18 cm and its height is 5.2 cm, then its area

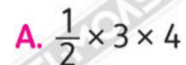
= ________ cm^2

A. 31.2 **B.** 93.6 **C.** 46.8 **D.** 15.6

14. Which of the following expressions does represent

the area of the opposite parallelogram ?



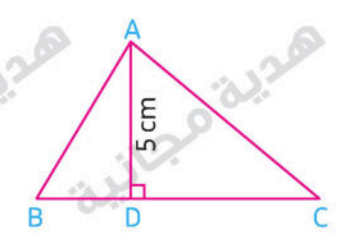


A. $\frac{1}{2} \times 3 \times 4$ **B.** 3×5

C. 2.4×4 **D.** 5×2.4

15. In the opposite figure :

ABC is a triangle in which $\overline{AD} \perp \overline{BC}$, AD = 5 cm, area of $\Delta ABC = 15\ cm^2$, then BC = ______ cm.



A. 12 **B.** 9

C. 6 **D.** 3

16. Afaf used subtraction to correctly find the area of this trapezium.

Which expression would represent what she did ?



A. $(7 \times 4) - (4 \times 1) - (4 \times 2)$

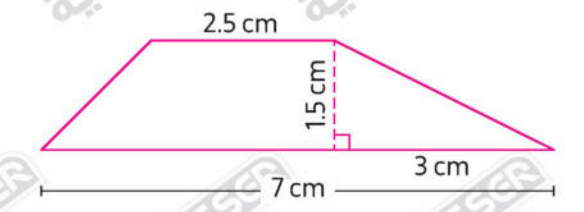
B. $(7 + 4) - \left[\frac{1}{2}(4 \times 1)\right] - \left[\frac{1}{2}(4 \times 2)\right]$

C. $(7 \times 4) - \left[\frac{1}{2}(4 \times 1)\right] - \left[\frac{1}{2}(4 \times 2)\right]$

D. $(4 \times 4) - \left[\frac{1}{2}(4 \times 1)\right] - \left[\frac{1}{2}(4 \times 2)\right]$

17. Area of the opposite trapezium

= ______ cm^2.



A. 7 **B.** 10

C. 13 **D.** $7\frac{1}{8}$

18. If a base length of a parallelogram is 10 m and its corresponding height is 4 m less than it, then the area of the parallelogram is ______ m^2.

A. 20 **B.** 40 **C.** 60 **D.** 100

19. A rhombus of side length 10 cm and the ratio between its height and its side length is 4 : 5 , then the area of the rhombus is ______ cm^2.

A. 50 **B.** 60 **C.** 80 **D.** 100

20. If the dimensions of a parallelogram are 10 cm and 8 cm and its greater height is 5 cm, then the length of its smaller height is ______ cm.

A. 4 **B.** 5 **C.** 6 **D.** 7

2 Complete the following.

1. Area of triangle = ...

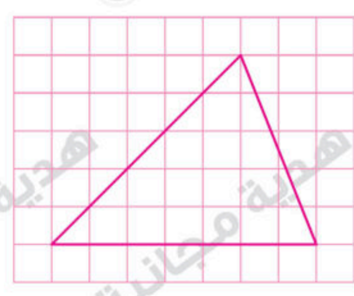
2. The area of the rhombus = ... × height.

3. The two base lengths of a parallelogram are 13 cm and 26 cm and its smaller height is 12 cm, then it's greater height is .... cm.

4. If the side length of a rhombus is 9 cm and it's height is 8 cm, then its area is .... cm^2.

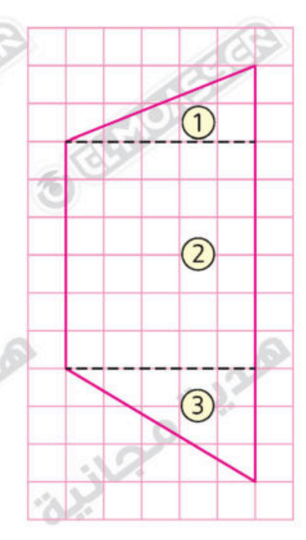
5. The area of a square with side length 2.4 cm is .... mm^2.

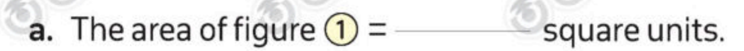
6. The area of the opposite triangle is .... square units.



7. If ABC is a right-angled triangle at C, and AC = 7 cm, BC = 8 cm, then its area = ... cm^2.

8. The opposite figure is a trapezium decomposed into 3 figures.





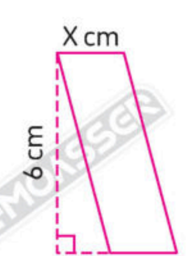
   a. The area of figure ① = ... square units.

   b. The area of figure ② = ... square units.

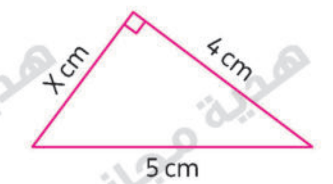
   c. The area of figure ③ = ... square units.

   d. The area of the trapezium = ... square units.

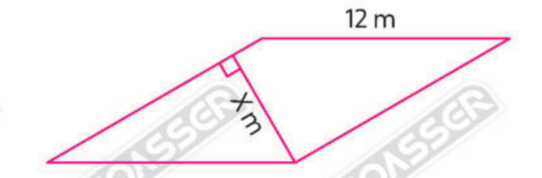
9. If the area of the opposite parallelogram is 12 cm^2, then the value of X is ....



10. If the area of the opposite triangle is 6 cm^2 , then the value of X is ________



11. If the area of the opposite rhombus is 72 m^2 , then the value of X is ________



3 Answer the following.

1. **Which one is greater in area ?**

   A triangle with base length 10 cm and its corresponding height 5.4 cm or a rhombus of side length 12 cm and a height 4.55 cm.

2. A parallelogram of base length 26 cm and the ratio between its base length and its height is 13 : 6

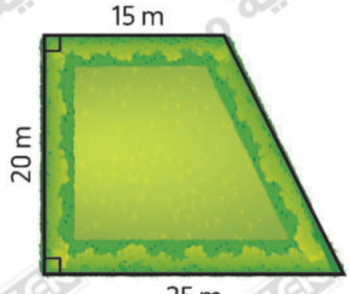
   Calculate the area of the parallelogram.

3. If the ratio between the corresponding height and the base length of a triangle is 4 : 5 , and the difference between them is 10 cm. **Find the area of the triangle.**

4. **In the opposite figure :**

   A piece of land in the form of a trapezium, if we want to fertilize this plot with fertilizer, one bag of fertilizer is enough for an area of 100 m^2

   How many bags of fertilizer needed to fertilize this piece of land ?



1 Choose the correct answer.

1. Which of following expressions represents the surface area of a cube with side length S ?

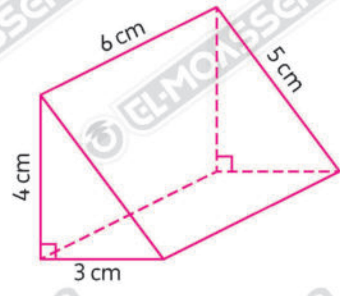
   A. S^3 B. $6S^2$ C. $6S^3$ D. $2S + 4S^2$

2. The surface area of a cuboid of dimensions 1.3 cm, 1.9 cm and 4 cm is ______ cm^2.

   A. 9.88 B. 19.76 C. 14.4 D. 30.54

3. The surface area of the opposite triangular prism is ______ cm^2.

   A. 18 B. 66
   C. 84 D. 360



4. Which of the following expressions represents the surface area of the opposite square pyramid ?

   A. $(4 \times 4) + \left[4 \times (\frac{1}{2} \times 4 \times 8)\right]$
   B. $(8 \times 8) + \left[4 \times (\frac{1}{2} \times 8 \times 4)\right]$
   C. $(4 \times 8) + \left[4 \times (\frac{1}{2} \times 4 \times 8)\right]$
   D. $(4 \times 4) + \left[4 \times (4 \times 8)\right]$



5. The volume of the cuboid of dimensions 2.5 m, 1.4 m and 3.4 m is ______ m^3.

   A. 7.3 B. 14.6 C. 11.9 D. 33.52

6. A cuboid of volume 250 m^3, if its width is doubled, then the new volume of the cuboid is ______ m^3.

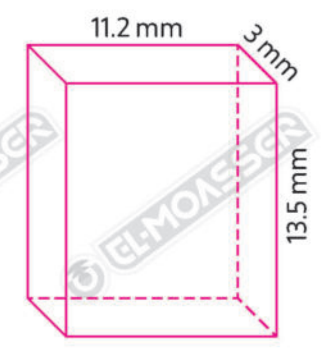
   A. 125 B. 250 C. 500 D. 2,000

7. The side length of the cube which its surface area equals 150 cm^2 equals ______ cm.

   A. 5 B. 25 C. 30 D. 6

8. The surface area of the opposite cuboid is ______

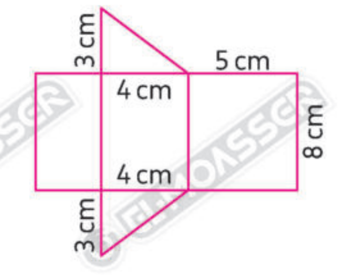
   A. 453.6 B. 383.4
   C. 450.6 D. 225.3



9. Which of the following statements shows the number of faces of square pyramid ?

A. 2 triangles , 2 squares
B. 4 triangles , 2 squares
C. 4 triangles , 1 square
D. 3 triangles , 1 square

10. The surface area of the opposite triangular prism = ... cm^2



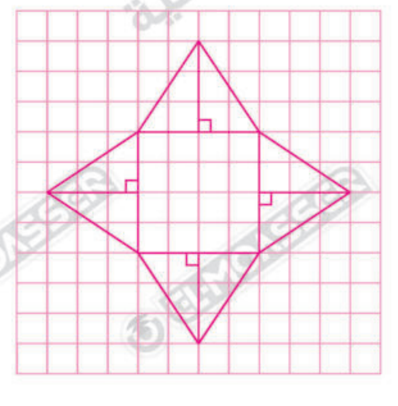
A. 28
B. 35
C. 21
D. 108

11. If the volume of cuboid is 60 cm^3 , and two dimensions are doubled, then the new volume is .... cm^3.

A. 30
B. 60
C. 120
D. 240

12. The opposite net shows a square pyramid, then its surface area = ... square units



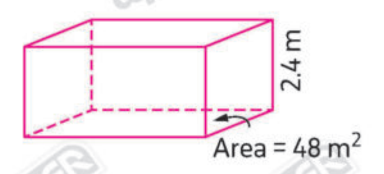


A. 44
B. 16
C. 24
D. 40

13. Which of the following estimations is suitable for the volume of a cuboid whose dimensions are 7.5 cm, 6.5 cm and 4.5 cm ?

A. 100 cm^3
B. 160 cm^3
C. 280 cm^3
D. 400 cm^3

14. The volume of the opposite cuboid = ... m^3.



A. 224.2
B. 120
C. 115.2
D. 84.2

15. The surface area of a cube of side length 7 cm is .... cm^2.

A. 42
B. 49
C. 98
D. 294

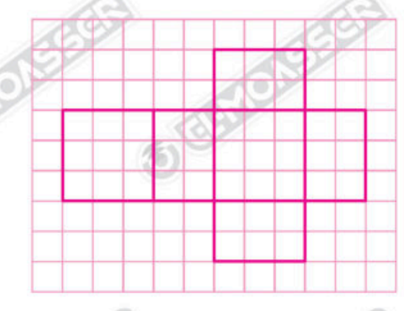
16. The surface area of the square pyramid in which the perimeter of its base is 32 cm and the height of each triangular face is 5 cm equals ______ cm^2.

A. 84 **B.** 64 **C.** 144 **D.** 1,344

17. If the volume of cuboid is 132 cm^3 and its height is 5.5 cm then its base area equals ______

A. 24 cm^2. **B.** 24 cm. **C.** 26.4 cm^2. **D.** 26.4 cm.

18. The surface area of the opposite cuboid equals ______ square units.



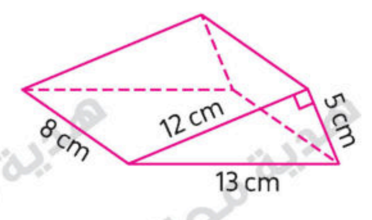
A. 9 **B.** 24
C. 33 **D.** 42

19. If the height of a cuboid is doubled, then the ratio between the new volume and the original volume of the cuboid is ______

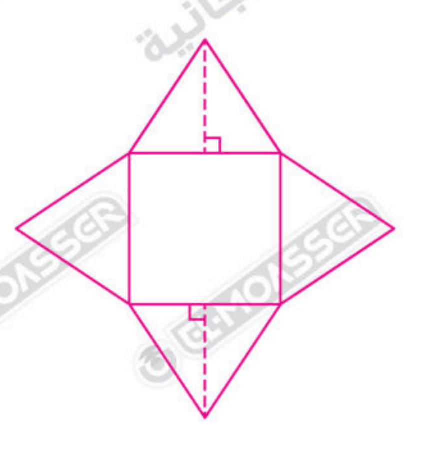
A. 1 : 2 **B.** 2 : 1 **C.** 1 : 8 **D.** 8 : 1

2 Complete the following.

1. Volume of cuboid = ______ × height
2. The volume of the cuboid = ______ × ______ × ______
3. The triangular prism has ______ triangular faces and ______ rectangular faces.
4. If the perimeter of one face of a cube is 28 cm, then its surface area equals ______ cm^2.
5. In the opposite triangular prism :

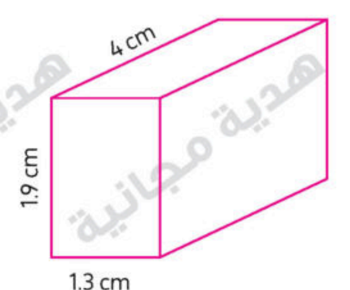


   a. The area of the triangular faces = ______ cm^2.
   b. The area of the rectangular faces = ______ cm^2.
   c. The surface area of the triangular prism = ______ cm^2.
6. In the opposite pyramid :
   the perimeter of the square is 36 cm and the height of the triangular face is 6 cm, then



   a. the side length of the square base = ______
   b. the area of the square base = ______
   c. the area of the triangular faces = ______
   d. the surface area of the pyramid = ______

7. In the opposite cuboid :



If the dimensions are 1.3 cm , 1.9 cm and 4 cm , then

a. the surface area of the cuboid = ...

b. the volume of the cuboid = ...

c. if we trible one dimension, then the new volume = ...

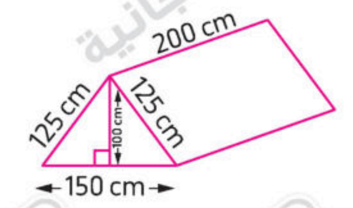
d. if we double two dimensions, then the new volume = ...

8. If the sum of 4 edges in a cube is 16 cm, then its surface area equals ....

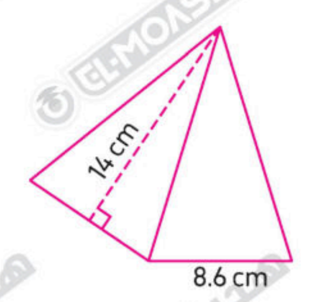
3 Answer the following.

1. Shahd is wrapping a gift. she places it in a box 10 cm long, 4 cm wide and 10 cm high. if Shahd bought a roll of wrapping paper that is 280 cm^2. Did she buy enough paper to wrap the gift ?

2. Ahmed used wood to build a house for his dog in the shape of a triangular prism as the opposite figure. Calculate its surface area.



3. Find the surface area of the opposite pyramid.



4. A cuboid with dimensions 15.2 m , 8.5 m and 5 m

a. Find the volume of the cuboid.

b. If the three dimensions are doubled, find the new volume.



Unit 8

1

1. D
2. C
3. B
4. A
5. A
6. A
7. ⓐ B ⓑ D ⓒ C ⓓ A ⓔ B
8. B
9. A
10. D
11. C
12. B
13. A
14. D
15. A
16. C
17. B
18. A
19. A
20. C
21. B
22. A

2

1. 1
2. $7\frac{1}{2}$
3. 14
4. $\frac{3}{2}$
5. $\frac{3}{8}$
6. ⓐ 4,902 ⓑ 49.02 ⓒ 0.4902 ⓓ 57
7. zero
8. 0.16 , 4
9. 120
10. 49
11. $\frac{3}{10}$
12. $\frac{8}{9}$
13. $\frac{7}{3}$
14. $\frac{3}{7}$

3

1. The number of balls $= \frac{5}{3} \div \frac{5}{27}$

$$= \frac{\cancel{5}^{1}}{\cancel{3}_{1}} \times \frac{\cancel{27}^{9}}{\cancel{5}_{1}}$$

= 9 balls.

2. The price = 36.5 × 3.5 = 127.75 L.E.

3. The number of bottles $= 30 \div \frac{3}{4}$

$$= \cancel{30}^{10} \times \frac{4}{\cancel{3}_{1}}$$

= 40 bottles.

4. The price of each book = 361.6 ÷ 8

= 45.2 L.E.

5. ⓐ

1 whole			1 whole			1 whole		
$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$

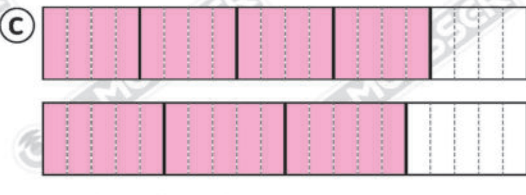
So, $3 \div \frac{2}{3} = 4\frac{1}{2}$

ⓑ

$\frac{1}{3}$		$\frac{1}{3}$		$\frac{1}{3}$	
$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$

So, $\frac{1}{3} \div 2 = \frac{1}{6}$

ⓒ



So, $\frac{4}{5} \div \frac{3}{4} = \frac{16}{15}$

Unit 9

1

1. D
2. C
3. B
4. ⓐ A ⓑ B
5. D
6. B
7. A
8. D
9. C
10. A
11. D
12. C
13. C
14. A
15. A
16. C
17. D
18. D
19. C
20. D

2 **1.** 4 : 5 **2.** 7 **3.** 2 to 3
4. 16 **5.** 12 **6.** 34
7. 4 : 5 **8.** 16 **9.** 6

3 **1.** ⓐ 60 : 30 [÷ 10]
6 : 3 [÷ 3]
2 : 1

ⓑ 30 : 90 [÷ 10]
3 : 9 [÷ 3]
1 : 3

2. A = 6 B = 11 C = 25
D = 55 E = 48 F = 40

3. 90 L.E.

4. ⓐ 18 ⓑ 6

5. ⓐ 300 L.E. ⓑ 500 L.E.

6. ⓐ 7 ⓑ 7
ⓒ 7 ⓓ 28

Unit 10

1 **1.** B **2.** B **3.** D
4. B **5.** B **6.** B
7. D **8.** B **9.** B
10. C **11.** D **12.** D
13. B **14.** D **15.** C
16. B **17.** D **18.** B
19. C **20.** D **21.** C

2 **1.** 25 **2.** 1 **3.** 60
4. 15 **5.** 30 **6.** 9
7. 6.48 **8.** 125 **9.** 22
10. 93 **11.** 3 **12.** 114
13. $\frac{1}{2}$ **14.** 80 **15.** 600
16. 9,000 **17.** 11 **18.** 500
19. 125 **20.** second term is 100
21. 2,880 **22.** 100

3 **1.** 4.52 m

2. The number of vaccinated children
$= 60 \times 40\,\% = 60 \times \frac{40}{100}$
= 24 children

The number of non-vaccinated
children = 60 – 24 = 36 children

3. 10% × 20,000 = 2,000
$5\% = \frac{1}{2} \times 10\% = \frac{1}{2} \times 2{,}000 = 1{,}000$
The sales tex = 15 % of 20,000
= 2,000 + 1,000
= 3,000 L.E.

The price of the T.V. = 20,000 + 3,000
= 23,000 L.E.

4. Unit rate $= \frac{3}{2} = 1.5$ oranges per cup

Number of oranges = 6 × 1.5
= 9 oranges

5. 20 L.

6. What Omar got = 50 × 70 %

$= 50 \times \frac{70}{100} = 35$ marks

The ratio = 30 : 35 [÷ 5] = 6 : 7

Unit 11

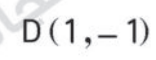
1

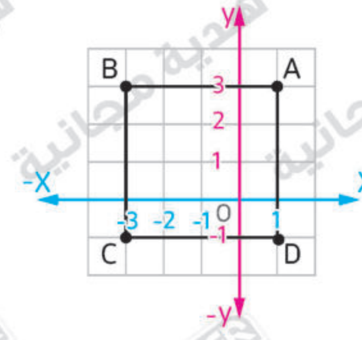
1. D 2. C 3. B
4. C 5. C 6. D
7. D 8. ⓐ B ⓑ B
ⓒ C ⓓ C ⓔ D
ⓕ A ⓖ D ⓗ C
ⓘ C 9. B 10. B

2

1. x 2. second 3. 6
4. fourth 5. (0 , – 3)
6. ⓐ A (3 , 3) , B (2 , – 1) , C (– 3 , – 1)
ⓑ 5 ⓒ (– 3 , 1) ⓓ (– 2 , 0)
ⓔ 1 ⓕ obtuse ⓖ (– 2 , 3)
ⓗ (2 , 3)

3

1. C (– 3 , – 1)

D (1 , – 1)



2. ⓐ A (3 , 3) , first
B (3 , – 1) , fourth
C (– 3 , – 1) , third

ⓑ a triangle

ⓒ (– 3 , 3)

ⓓ 4 units , 6 units

ⓔ Perimeter = 20 units , Area

Area = 24 square units

3. What she walked = |– 2| + |1| = 2 + 1

= 3 units

Unit 12

1

1. D 2. D 3. C
4. A 5. A 6. C
7. A 8. D 9. C
10. B 11. D 12. C
13. D 14. D 15. C
16. C 17. D 18. C
19. C 20. A

2

1. $\frac{1}{2} \times b \times h$ 2. base
3. 24 4. 72 5. 576
6. 17.5 7. 28 8. ⓐ 5
ⓑ 30 ⓒ 7.5 ⓓ 42.5
9. 2 10. 3 11. 6

3

1. The area of the triangle $= \frac{1}{2} \times 10 \times 5.4$

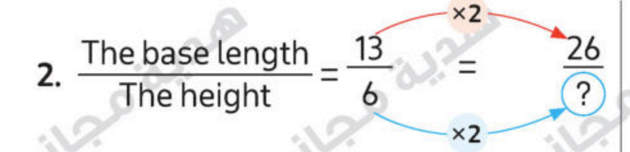
$= 27 \text{ cm}^2$

The area of the rhombus = 12 × 4.55

$= 54.6 \text{ cm}^2$

The area of the rhombus is greater

2. $\frac{\text{The base length}}{\text{The height}} = \frac{13}{6} = \frac{26}{?}$



The height = 6 × 2 = 12 cm

Area = 26 × 12 = 312 cm^2

3.



Each box = 10 , the height = 10 × 4 = 40 cm

and the base length = 10 × 5 = 50 cm

So, the area of the triangle

$= \frac{1}{2} \times 50 \times 40$

= 1,000 cm^2

4. The area of the land

$= (25 \times 20) - (\frac{1}{2} \times 10 \times 20)$

= 500 – 100 = 400 m^2

The number of bags = 400 ÷ 100 = 4 bags

Unit 13

1

1. B	2. D	3. C
4. A	5. C	6. C
7. A	8. C	9. C
10. D	11. D	12. D
13. C	14. C	15. D
16. C	17. B	18. D
19. B		

2

1. base area
2. l × w × h
3. 2 , 3
4. 294
5. ⓐ 60 ⓑ 240 ⓒ 300
6. ⓐ 9 cm ⓑ 81 cm^2 ⓒ 108 ⓓ 189
7. ⓐ 30.54 cm^2 ⓑ 9.88 cm^3 ⓒ 29.64 cm^3 ⓓ 39.52 cm^3
8. 96 cm^2

3

1. The surface area of the box

= 2 (10 × 4 + 10 × 10 + 4 × 10)

= 2 (40 + 100 + 40)

= 2 × 180 = 360 cm^2

She didn't buy enough paper

2. The surface area =

$(2 \times \frac{1}{2} \times 150 \times 100) + (125 \times 200)$

+ (125 × 200) + (150 × 200)

= 15,000 + 25,000 + 25,000 + 30,000

= 95,000 cm^2

3. The area = (8.6 × 8.6) +

$(4 \times \frac{1}{2} \times 8.6 \times 14)$

= 73.96 + 240.8 = 314.76 cm^2

4. ⓐ The volume = 15.2 × 8.5 × 5

= 646 m^3

ⓑ The new volume = 646 × 8

= 5,168 m^3

Unit 8

Choose the correct answer

1. Half of $\frac{4}{7}$ is ______
   A. $\frac{4}{2}$ B. $\frac{7}{2}$ C. $\frac{4}{14}$ D. $\frac{8}{7}$

2. Fifth of 45 is ______
   A. $\frac{5}{9}$ B. 18 C. 9 D. $\frac{9}{5}$

3. $\frac{2}{3}$ of $27 =$ ______
   A. 27 B. 18 C. 9 D. 3

4. $\frac{3}{7}$ of $\frac{7}{3} =$ ______
   A. $\frac{37}{73}$ B. 1 C. $\frac{3}{7}$ D. $\frac{7}{3}$

5. The reciprocal of 5 is ______
   A. 0 B. 5 C. $\frac{1}{5}$ D. -5

6. The reciprocal of 1 is ______
   A. zero B. 1 C. has no reciprocal

7. The reciprocal of zero is ______
   A. zero B. 1 C. has no reciprocal

8. The reciprocal of $\frac{3}{4}$ is ______
   A. 3 B. 4 C. $1\frac{1}{3}$

9. $5 \div \frac{2}{3} = 5 \times$ ______
   A. $\frac{2}{3}$ B. $\frac{3}{2}$ C. $\frac{10}{3}$ D. $2\frac{1}{3}$

10. The number of $\frac{4}{9}$'s in 8 is ______
    A. 36 B. 18 C. 9 D. 4

Unit 8

Choose the correct answer

11. How many $\frac{2}{5}$ s are there in 4 oranges ?

A. 8 B. 10 C. $\frac{8}{5}$ D. $4\frac{2}{5}$

12. How many $\frac{1}{6}$'s are there in $\frac{1}{2}$ apple ?

A. $\frac{1}{3}$ B. 1 C. 12 D. 3

13. How many $\frac{1}{8}$'s are in $\frac{3}{4}$?

A. 3 B. 4 C. 6 D. 8

14. $\frac{2}{7} \div \frac{2}{4} =$ ______

A. $\frac{4}{7}$ B. $\frac{7}{4}$ C. $\frac{4}{28}$ D. 1

15. $\frac{4}{7} \div \frac{1}{7} =$ ______

A. 4 B. $\frac{3}{7}$ C. 7 D. $\frac{7}{4}$

16. $\frac{4}{11} \div \frac{1}{4} =$ ______

A. $\frac{1}{11}$ B. $\frac{4}{4}$ C. $\frac{16}{11}$ D. $\frac{11}{16}$

17. $\frac{3}{4} \div \frac{9}{16} =$ ______

A. $\frac{4}{3}$ B. $\frac{3}{4}$ C. $\frac{27}{64}$ D. $\frac{64}{27}$

18. $\frac{7}{4} \div \frac{3}{4} =$ ______

A. $\frac{3}{7}$ B. $2\frac{1}{3}$ C. $\frac{4}{7}$ D. $\frac{4}{3}$

19. $\frac{2}{3} \div \frac{2}{5} =$ ______

A. $\frac{4}{15}$ B. $1\frac{2}{3}$ C. $\frac{15}{4}$ D. $\frac{1}{15}$

Choose the correct answer

20) $\frac{3}{4} \div 2 =$ ______

A. $\frac{3}{8}$ B. $\frac{6}{4}$ C. $\frac{4}{6}$ D. $\frac{3}{2}$

21) $4 \div \frac{2}{4} =$ ______

A. $\frac{2}{4}$ B. $\frac{4}{2}$ C. 4 D. 8

22) $5 \div \frac{1}{3} =$ ______

A. $\frac{5}{3}$ B. $\frac{3}{5}$ C. $5\frac{1}{3}$ D. 15

23) $5 \div \frac{3}{4} =$ ______

A. $6\frac{3}{4}$ B. $6\frac{2}{4}$ C. $6\frac{2}{3}$ D. $5\frac{3}{4}$

24) The product of any number by its reciprocal equals ______

A. zero B. 1 C. $\frac{3}{5}$ D. $\frac{5}{3}$

25) ______ $\div \frac{1}{4} = 1$

A. $\frac{1}{4}$ B. 0.4 C. 1 D. 4

26) $\frac{2}{7} \times$ ______ $= 1$

A. $\frac{2}{7}$ B. zero C. $\frac{7}{2}$ D. 1

27) ______ $\times \frac{4}{5} = 1$

A. $\frac{4}{5}$ B. $\frac{5}{4}$ C. 1 D. 0.5

Unit 8

Choose the correct answer

28 ________ $\times \frac{3}{4} = 1$

A. $1\frac{1}{3}$ B. $\frac{4}{1}$ C. $\frac{3}{4}$ D. $\frac{1}{3}$

29 ________ $\div \frac{3}{5} = \frac{3}{2}$

A. $\frac{2}{5}$ B. $\frac{9}{10}$ C. $\frac{5}{2}$ D. $\frac{6}{10}$

30 ________ $\div \frac{3}{8} = \frac{5}{6}$

A. $\frac{5}{16}$ B. $\frac{1}{2}$ C. $\frac{15}{16}$ D. $\frac{9}{20}$

31 ________ $\div \frac{2}{7} = 3$

A. $\frac{21}{2}$ B. $\frac{7}{6}$ C. $\frac{7}{2}$ D. $\frac{6}{7}$

32 ________ $\times \frac{3}{5} = \frac{6}{35}$

A. $\frac{2}{7}$ B. $\frac{3}{30}$ C. $\frac{18}{105}$ D. $\frac{3}{7}$

33 ________ $\times \frac{3}{8} = \frac{5}{6}$

A. $\frac{9}{20}$ B. $\frac{20}{9}$ C. $\frac{8}{16}$ D. $\frac{5}{16}$

34 $\frac{3}{4} \times$ ________ $= \frac{3}{2}$

A. $\frac{1}{2}$ B. $\frac{1}{4}$ C. $\frac{4}{3}$ D. 2

35 $\frac{4}{7} \div$ ________ $= 1\frac{1}{2}$

A. $\frac{8}{21}$ B. $\frac{21}{8}$ C. $\frac{6}{7}$ D. $\frac{7}{6}$

Unit 8

Choose the correct answer

36 $\frac{2}{3} \div \frac{1}{3}$ ☐ $\frac{1}{2}$

A. < B. = C. >

37 $\frac{3}{4} \div \frac{1}{2}$ ☐ $\frac{1}{2}$

A. < B. = C. >

38 $\frac{1}{3} \div \frac{1}{2}$ ◯ $\frac{2}{5}$

A. < B. = C. >

39 $\frac{1}{4} \div \frac{1}{2}$ ☐ $\frac{1}{8}$

A. < B. = C. >

40 $\frac{3}{5} \div 3$ ☐ $\frac{1}{5}$

A. < B. = C. >

41 $\frac{1}{4} \div \frac{1}{8}$ ☐ $\frac{2}{3}$ of 6

A. < B. = C. >

42 3.25×0.12 ☐ 32.5×0.012

A. < B. = C. >

43 $465.3 \div 0.25$ ☐ $4653 \div 2.5$

A. < B. = C. >

Choose the correct answer

44 $0.45 \times 3.5 = 4.5 \times$ ……………

A. 35 B. 3.5 C. 0.35 D. 0.035

45 If $2.2 \times 2.07 = 4.554$, then $22 \times 20.7 =$ ……………

A. 4554 B. 455.4 C. 45.54 D. 4.554

46 If $111 \times 23 = 2553$, then $1.11 \times 2.3 =$ ……………

A. 255.3 B. 25.53 C. 2.553 D. 0.2553

47 $0.453 \times 0.1 =$ ……………

A. 0.0543 B. 4.53 C. 0.0453 D. 0.453

48 $0.2 \times 0.5 =$ ……………

A. 0.10 B. 0.01 C. 1 D. 1.10

49 $5.4 \times 0.02 =$ ……………

A. 10.8 B. 1.08 C. 0.108 D. 0.0108

50 $3.3 \times 1.1 =$ ……………

A. 3630 B. 363 C. 36.3 D. 3.63

51 $2.1 \times 0.3 =$ ……………

A. 6.3 B. 0.63 C. 63 D. 0.063

52 $34.25 \div 0.25 =$ …………… $\div 25$

A. 34.25 B. 342.5 C. 3425 D. 3.425

53 $13.31 \div 1.1 =$ …………… $\div 11$

A. 1,331 B. 1.331 C. 13.31 D. 133.1

Unit 8

Choose the correct answer

54 $72.3 \div 0.01 =$ ______

A. 7,230 B. 0.723 C. 7.23 D. 72.3

55 $3.6 \div 0.12 =$ ______

A. 30 B. 3 C. 0.3 D. 0.03

56 $332.2 \div 0.11 =$ ______

A. 320 B. 302 C. 3020 D. 3.02

57 If $48.36 \div 7.8 = 6.2$, then $4.836 \div 0.78 =$ ______

A. 0.62 B. 6.2 C. 62 D. 620

58 If $15.25 \div 0.05 = 305$, then $152.5 \div 0.5 =$ ______

A. 30.5 B. 3.05 C. 305 D. 3.5

59 If $24 \times 96 = 2{,}304$, then $2{,}304 \div 9.6 =$ ______

A. 24 B. 2.4 C. 0.24 D. 240

60 If $34 \times 78 = 2{,}652$, then $26.52 \div 3.4 =$ ______

A. 78 B. 0.78 C. 7.8 D. 8.7

61 If $34 \times 25 = 850$, then $8.5 \div 3.4 =$ ______

A. 25 B. 2.5 C. 0.25 D. 250

62 From the opposite model , $2 \div \frac{1}{2} =$ ______

A. 4 B. $\frac{1}{4}$ C. $\frac{1}{2}$ D. 2

1		1	
$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$

Unit 8

Choose the correct answer

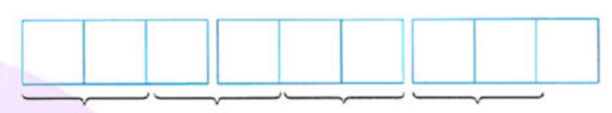
63 From the opposite model , $3 \div \frac{1}{3} =$ ______

1			1			1		
$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$

A. $\frac{1}{9}$ B. 9

C. 3 D. $\frac{9}{9}$

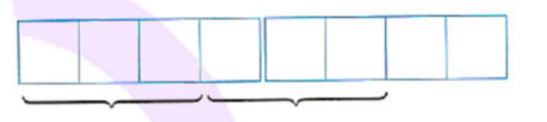
64 From the opposite model , $3 \div \frac{2}{3} =$ ______



A. $4\frac{1}{2}$ B. $4\frac{1}{3}$

C. $3\frac{1}{4}$ D. $3\frac{1}{2}$

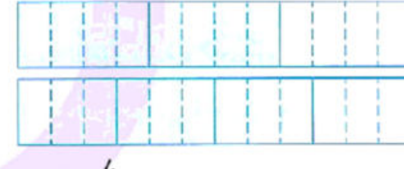
65 From the opposite model , $2 \div \frac{3}{4} =$ ______



A. $2\frac{2}{4}$ B. $\frac{2}{4}$

C. $2\frac{2}{3}$ D. $\frac{3}{2}$

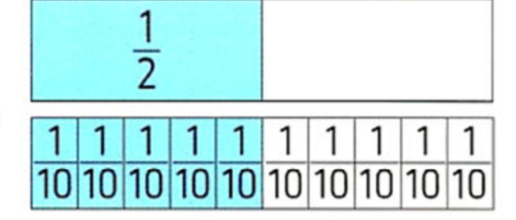
66 From the opposite model ,



$\frac{2}{3} \div \frac{3}{4} =$ ______

A. $\frac{2}{4}$ B. $\frac{8}{9}$ C. $\frac{9}{8}$ D. $\frac{4}{2}$

67 you can use the opposite model to solve the problem ______



A. $\frac{1}{10} \div \frac{1}{2}$ B. $\frac{1}{10} \div 5$ C. $\frac{1}{2} \div 5$ D. $\frac{1}{2} \div 10$

Complete the following

1. Fifth of 25 is ______
2. Two thirds of 15 = ______
3. $\frac{3}{4}$ of $\frac{4}{3}$ = ______
4. The reciprocal of $\frac{4}{9}$ is ______
5. $8 \div \frac{2}{3} = 8 \times$ ______
6. The number of $\frac{2}{5}$'s in 2 is ______
7. $5 \div \frac{5}{9} =$
8. $5 \div \frac{2}{3} =$ ______
9. $\frac{3}{10} \div 3 =$
10. $\frac{1}{7} \div 2 =$
11. $\frac{4}{13} \div \frac{1}{13} =$ ______
12. $\frac{8}{9} \div \frac{4}{3} =$ ______
13. $\frac{3}{4} \div \frac{5}{8} =$ ______
14. $\frac{6}{7} \div \frac{3}{14} =$ ______
15. $\frac{1}{2} \times$ ______ $= 1$
16. ______ $\times \frac{2}{7} = 1$
17. $\frac{3}{5} \times$ ______ $= \frac{6}{10}$
18. ______ $\times \frac{2}{5} = \frac{4}{15}$
19. $\frac{2}{3} \div$ ______ $= 1$
20. $\frac{5}{6} \div$ ______ $= 5$
21. ______ $\times \frac{3}{4} = \frac{1}{2}$
22. ______ $\div \frac{1}{2} = \frac{4}{7}$
23. $34 \times 0.25 = 3.4 \times$ ______
24. $2.5 \times 3.4 = 25 \times$ ______

Complete the following

25. $0.454 \times 0.1 =$ ....
26. $0.3 \times 0.12 =$ ....
27. $0.9 \times 60.5 =$ ....
28. $3.8 \times 2.5 =$ ....
29. $2.32 \div 0.4 =$ .... $\div 4$
30. $3.25 \div 0.025 =$ .... $\div 25$
31. $7.45 \div 0.01 =$ ....
32. $4.2 \div 0.06 =$ ....
33. $0.036 \div 0.3 =$ ....
34. $4.84 \div 0.8 =$ ....
35. $4.8 \div 0.16 =$ ....
36. $6.21 \div 2.7 =$ ....
37. If $31 \times 25 = 775$, then $0.31 \times 2.5 =$ ....
38. If $10.35 \div 2.3 = 4.5$, then $23 \times 4.5 =$ ....
39. If $35 \times 207 = 7{,}245$, then $7.245 \div 35 =$ ....
40. Noha uses $\frac{4}{9}$ cup of milk to make 2 mugs of coffee, so she uses .... cup of milk to make one mug of coffee.
41. The model represents .... $\div$ ....
42. From the opposite model, $2 \div \frac{3}{4} =$ ....



Complete the following

43 From the opposite model ,

$\frac{3}{4} \div 2 =$ ……………

44 From the opposite model.

, $\frac{1}{2} \div 3 =$ ……………

$\frac{1}{2}$			$\frac{1}{2}$		
$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$

45 From the opposite model ,

$\frac{2}{4} \div \frac{3}{8} =$ ……………

$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$	
$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$

Answer the following

1 Find the value of m in each of the following.

1. $\frac{3}{4} \times m = \frac{3}{8}$
2. $\frac{3}{4} \div m = \frac{3}{8}$

2 Use model to divide , then write the quotient.

1. $\frac{3}{4} \div 6$
2. $6 \div \frac{2}{3}$
3. $\frac{3}{5} \div \frac{1}{4}$

Answer the following

3) A runner covered $\frac{4}{5}$ kilometer in 2 laps. **How many kilometers did he run in one lap ?**

4) Laila has 6 liters of milk. She needs to divide it into small bottles of $\frac{3}{4}$ liters each. **How many bottles will she need ?**

5) $\frac{3}{7}$ of a 1 liter container is filled with water. If a mug can contain $\frac{6}{56}$ of a liter **, then how many mugs of water are needed to be filled with this amount of water ?**

6) A box of table tennis balls weighs $\frac{10}{18}$ of a kg. If each ball weighs $\frac{5}{27}$ of a kg **, then how many balls are there in the box ?**

7) Soha divided 127.5 L.E. among her three sons. **Find the share of each one.**

8) If the price of 15 pencils of the same kind is 112.5 L.E. Find the price of each pencil.

9) Noha bought 7 books for 14.25 L.E. each. **What is the price of these 7 books ?**

10) If the price of one meter of cloth is 25.4 L.E. **Find the price of 2.5 meters.**

The Answers

Choose the correct answer:

1. C	2. C	3. B	4. B	5. C
6. B	7. C	8. C	9. B	10. B
11. B	12. D	13. C	14. A	15. A
16. C	17. A	18. B	19. B	20. A
21. D	22. D	23. C	24. B	25. A
26. C	27. B	28. A	29. B	30. A
31. D	32. A	33. B	34. D	35. A
36. C	37. C	38. C	39. C	40. B
41. A	42. B	43.B	44. C	45.B
46. C	47. C	48. A	49.C	50. D
51. B	52. C	53. D	54. A	55. A
56. C	57. B	58. C	59. D	60. C
61. B	62. A	63. B	64. A	65. C
66. B	67. C			

Complete the following:

1) 5	2) 10	3) 1	4) $\frac{9}{4}$	5) $\frac{3}{2}$
6) 5	7) 9	8) $7\frac{1}{2}$	9) $\frac{1}{10}$	10) $\frac{1}{14}$
11) 4	12) $\frac{2}{3}$	13) $1\frac{1}{5}$	14) 4	15) 2

The Answers

Complete the following:

16) $\frac{7}{2}$ 17) $\frac{2}{2} = 1$ 18) $\frac{2}{3}$ 19) $\frac{2}{3}$

20) $\frac{1}{6}$ 21) $\frac{2}{3}$ 22) 23) 2.5

24) 0.34 25) 0.0454 26) 0.036 27) 54.45

28) 9.5 29) 23.2 30) 3250 31) 745

32) 70 33) 0.12 34) 6.05 35) 30

36) 2.3 37) 0.775 38) 103.5 39) 0.207

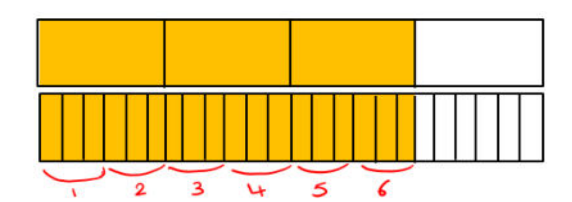
40) $\frac{2}{9}$ 41) $2 \div \frac{2}{4}$ 42) $2\frac{2}{3}$ 43) $\frac{3}{8}$

44) $\frac{1}{6}$ 45) $1\frac{1}{3}$

Answer the following:

1) 1. $m = \frac{1}{2}$ 2. 2

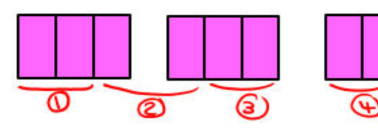
2) $\frac{3}{24} = \frac{1}{8}$

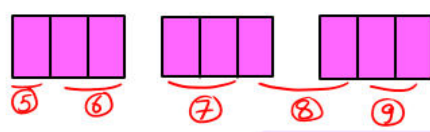


The Answers

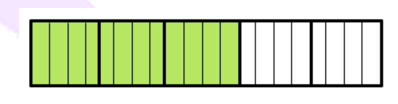
Answer the following:

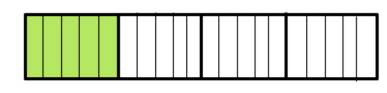
2) 9





3) $\frac{12}{20} \div \frac{5}{20} = \frac{12}{5} = 2\frac{2}{5}$





3) $\frac{2}{5}$ 4) 8 5) 4 6) 3

7) 127.5 ÷ 3 = 42.5 L.E.

8) 112.5 ÷ 5 = 22.5 L.E

9) 14.25 x 7 = 99.75 L.E

10) 25.4 x 2.5 = 63.5 L.E

Unit 9

Choose the correct answer

1 The first term in the ratio 4 : 7 is ______

A. 11 B. 7 C. 4 D. 3

2 The second term in the ratio 1 : 6 is ______

A. 1 B. 7 C. 6 D. 2

3 Which ratio means the same thing as 1 : 4 ?

A. 4 through 1 B. 1 to 1 C. $\frac{4}{1}$ D. 1 to 4

4 If ratio between number of boys and girls is 3 : 5 then the ratio between girls to total number is ______ : ______

A. 3 : 5 B. 3 : 8 C. 5 : 8 D. 5 : 3

5 To find the simplest form of the ratio 12 : 18 , we divide the two terms by ______

A. 1 B. 2 C. 8 D. 6

6 Which of the following is the simplest form of 16 : 24 ?

A. 8 : 12 B. 4 : 6 C. 2 to 3 D. $\frac{3}{2}$

7 The simplest form of 14 : 28 is ______

A. 1 to 2 B. $\frac{1}{7}$ C. 4 : 8 D. $\frac{2}{1}$

8 The simplest form of the ratio 550 to 770 is ______

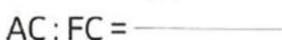
A. 5 : 7 B. $\frac{55}{77}$ C. 55 to 70 D. 7 to 5

9 The ratio 200 to 350 = ______ [in simplest form]

A. $\frac{20}{35}$ B. 4 : 7 C. 7 to 4 D. 5 : 7

10 From the opposite figure ,

A B C D E F

AC : FC = 

A. 3 : 2 B. 2 : 3 C. 2 : 4 D. 3 : 4

Choose the correct answer

Unit 9

11 From the opposite figure ,

A B F C D L E

AD : BC = ________ (in the simplest form)

A. 5 : 3 B. 2 : 1 C. 4 : 3 D. 3 : 5

12 The ratio between two side lengths of a rhombus is ________

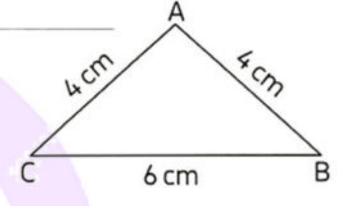
A. 1 : 1 B. 1 : 4 C. 2 : 4 D. 1 : 2

13 The ratio between the perimeter of square and side length is ________

A. 4 : 1 B. 1 : 4 C. 2 : 4 D. 1 : 2

14 **In the opposite figure :**

The ratio between length of $\overline{AB}$ and perimeter of Δ ABC is ________ : ________

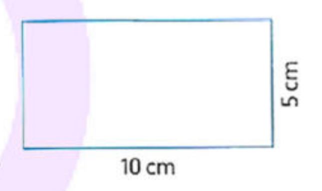


A. 1 : 10 B. 2 : 3

C. 6 : 8 D. 2 : 7

15 From the opposite rectangle :

The ratio between length and perimeter is ________



A. 10 : 5 B. 1 : 3

C. 5 : 10 D. 10 : 50

16 Which ratio is equivalent to 75 : 100 ?

A. $\frac{7.5}{1}$ B. 100 : 75 C. 140 : 200 D. 3 to 4

17 Which of the following ratios is equivalent to 12 : 18 ?

A. 6 : 8 B. 10 to 15 C. $\frac{2}{6}$ D. 24 : 32

18 Which of the following ratios is NOT equivalent to $\frac{36}{24}$?

A. $\frac{18}{12}$ B. $\frac{9}{6}$ C. $\frac{4}{8}$ D. $\frac{6}{4}$

19 Which of the following ratios are equivalent ?

A. $\frac{18}{36}$ and $\frac{3}{6}$ B. 5 to 7 and 7 to 9 C. $\frac{9}{32}$ and $\frac{3}{8}$ D. 6 to 9 and 3 : 2

Unit 9

Choose the correct answer

20 Which pair shows equivalent ratios?

A. 3 to 4 and $\frac{16}{20}$ B. $\frac{25}{50}$ and 1 : 2

C. $\frac{4}{8}$ and $\frac{3}{9}$ D. 1 : 3 and 3 : 6

21 If $\frac{5}{7} = \frac{x}{28}$, then x = ______

A. 4 B. 20 C. 9 D. 26

22 Which of the following are equivalent?

A. $\frac{18}{20}, \frac{27}{30}, \frac{1}{3}$ B. $\frac{18}{20}, \frac{9}{10}, \frac{27}{30}$ C. $\frac{9}{10}, \frac{16}{20}, \frac{36}{40}$ D. $\frac{2}{9}, \frac{4}{18}, \frac{8}{27}$

23 If 2 : 7 is equivalent to x : 14, then x = ______

A. 49 B. 4 C. 9 D. 2

24 If 4 to 9 is equivalent to $\frac{x}{36}$, then x = ______

A. 16 B. 81 C. 5 D. 13

25 If the ratio x : 3 is equivalent to 10 : 15, then x + 2 = ______

A. 2 B. 4 C. 6 D. 10

26 If $\frac{4}{x}$ is equivalent to $\frac{20}{35}$, then x – 3 = ______

A. 7 B. 4 C. 3 D. 1

27 If the ratio $\frac{5}{6}$ is equivalent to x – 1 : 12, then x = ______

A. 9 B. 10 C. 11 D. 4

28 From the opposite equivalent ratios, A + B = ______

4	36	B
9	A	36

A. 98 B. 97 C. 96 D. 95

Choose the correct answer

Unit 9

29 The next ratio 3 : 6 , 6 : 12 , 12 : 24 , ______

A. 24 : 48 B. 36 : 72 C. 24 : 27 D. 12 : 48

30 The next ratio of 2 : 5 , 6 : 15 , 18 : 45 , ______

A. 54 : 135 B. 54 : 90 C. 36 : 90 D. 54 : 180

31 If the ratio between two numbers is 1 : 6 and the first number is 12 , then the second number is ______

A. 2 B. 18 C. 36 D. 72

32 If the ratio of the number of red balls to the number of blue balls is 3 : 4 and the number of red is 24 , then the number of blue is ______

A. 18 B. 32 C. 12 D. 44

33 If the ratio between two numbers is 3 : 7 and sum of two numbers is 60 then the greater number is ______

A. 18 B. 6 C. 42 D. 49

34 The ratio between two numbers is 2 : 7 and the smaller is 8 , then the sum of them is ______

A. 27 B. 36 C. 72 D. 24

35 If the ratio between oranges and bananas is 3 : 4 and the number of bananas is 24 , then the difference between them is ______

A. 1 B. 6 C. 15 D. 20

36 If the ratio between a and b is 1 : 3 and the sum of a and b is 20 , then b = ______

A. 16 B. 4 C. 15 D. 80

37 The ratio between two numbers is 8 : 5 and the difference between them is 21 , then the greater is ______

A. 35 B. 56 C. 3 D. 7

Choose the correct answer

38 If the ratio between oranges and bananas is 1 : 4 and the sum of them is 15, then the difference between them is ....

A. 12 B. 5 C. 3 D. 9

39 The product of extremes [ ] the product of means.

A. < B. = C. > D. ≠

40 If 30 L.E. for 6 kg., then the cost of 30 kg is .... L.E.

A. 6 B. 150 C. 24 D. 120

41 The tape diagram (8 boxes / 3 boxes) represents the ratio ....

A. 3 : 6 B. 1 : 2 C. 7 : 3 D. $\frac{6}{4}$

42 From the opposite tape diagram, if the sum of boys and girls is 35, then each box equals ....

Boys (3 boxes)
Girls (2 boxes)

A. 3 B. 2 C. 5 D. 7

43 In the opposite tape diagrams. If the number of boys is 20, then the number of girls = ...

Boys (5 boxes)
Girls (6 boxes)

A. 16 B. 20
C. 24 D. 30

44 The opposite tape diagram shows the ratio between oranges and apples. If the difference between them is 4, then the sum of numbers oranges and apples is ....

Oranges (3 boxes)
Apples (2 boxes)

A. 4 B. 8
C. 12 D. 20

45 If the ratio between the number of red pens to the number of blue pens is 2 : 5 and the number of blue pens is more than the number of red pens by 6 pens, then the sum of all pens is ....

(2 boxes / 5 boxes)

A. 7 B. 10 C. 4 D. 14

Unit 9

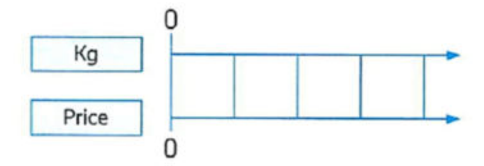
Choose the correct answer

46 The missing number in the opposite double number line is ______

Time: 0, 2, 4, 6
Distance: 0, 7, ..., 21

A. 9 B. 14
C. 17 D. 11

47 From the opposite double number line
If the price of one kilogram of orange is 15 L.E. then the price of 4 kg is ______ L.E.



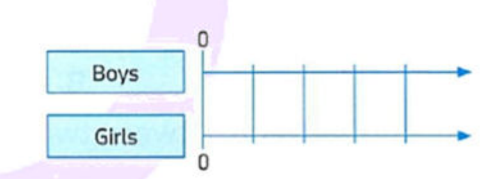
A. $3\frac{3}{4}$ B. 30 C. 90 D. 60

48 There are 24 cookies in 8 boxes , then the number of cookies in 3 boxes using double number line is ______

Number of boxes: 0, 8
Number of cookies: 0, 24

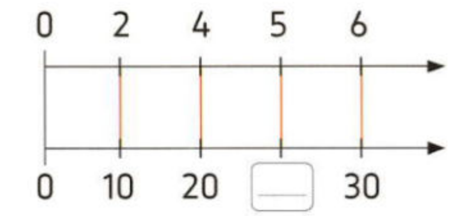
A. 3 B. 9
C. 12 D. 18

49 **From the opposite double number line :**
If the ratio between the numbers of boys to girls is 5 : 6 and the total of boys and girls is 44 pupils , then the number of girls is ______



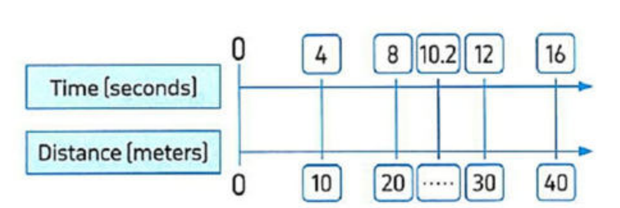
A. 20 B. 24 C. 4 D. 6

50 The missing number in the following double number line is ______



A. 10 B. 15
C. 20 D. 25

51 The missing number in the opposite double number line is ______



A. 20 B. 25
C. 30 D. 25.5

Unit 9

Choose the correct answer

52 Which of the following comparisons is showing a ratio ?

A. Six children like swimming than volleyball.

B. Three more children like volleyball than swimming.

C. Fewer children like swimming than volleyball.

D. For every six children like volleyball , three childern like swimming.

Complete the following

1 The ratio between two quantities with different units is called ……………

2 The first term in the ratio 25 : 49 is ……………

3 If the ratio between oranges to bananas is 3 to 5 , then the ratio between bananas : oranges is ……………

4 The next ratio of 1 : 4 , 2 to 8 , $\frac{4}{16}$ is ……………

5 The simplest form of the ratio 14 : 21 is ……………

6 The simplest form of the ratio 12 to 20 is ……………

7 240 : 300 = …………… to …………… (in simplest form)

8 If $\frac{x}{y} = \frac{z}{l}$, then x × …………… = z × ……………

9 If the ratio 7 : 11 is the same ratio x : 77 , then x = ……………

10 If $\frac{8}{x}$ is equivalent to $\frac{1}{2}$, then x = ……………

11 If $\frac{5}{x} = \frac{15}{12}$, then 2 x = ……………

Complete the following

12. If the ratio $\frac{3}{4}$ is equivalent to x : 12 , then x + 5 = ...

13. If $\frac{4}{x+1} = \frac{8}{10}$, then x = ...

14. If the ratio $\frac{4}{9}$ is equivalent to $\frac{12}{x-1}$, then x = ...

15. If the ratio between number of dogs and number of cats is 3 : 7. If the number of cats is 21 then the number of dogs is ....

16. The ratio between two numbers is 2 : 5 and the second number is 20 , then the sum of two numbers is ....

17. Hanan bought 2 kg of banana for 30 L.E., then she paid .... L.E. to buy 6 kg.

18. A car consumes 20 liters of benzene for 160 km , then its consumes 10 liters of benzene for .... km

19. The opposite table shows the ratio between boys and girls , then A = ...

Boys	Girls
3	4
12	A

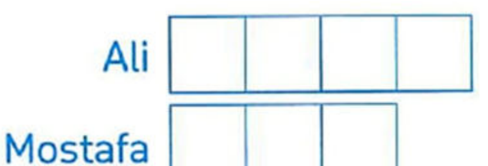
20. From the opposite equivalent ratios , then A + B = ...

4	12	B
5	A	35

21. **Find the missing numbers in the opposite ratio table.**

kg	1	2	3	4
L.E.	----	----	----	200

22. From the opposite tape diagram , the ratio between Mostafa and Ali = $\frac{\text{.....}}{\text{.....}}$

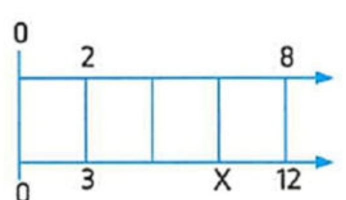


Complete the following

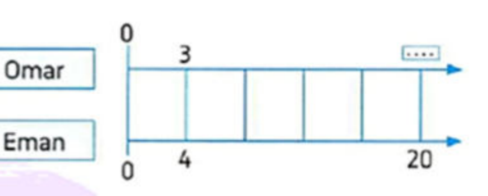
23 From the opposite tape diagram, if the difference between boys and girls is 20, then the number of boys = ...

Boys
Girls

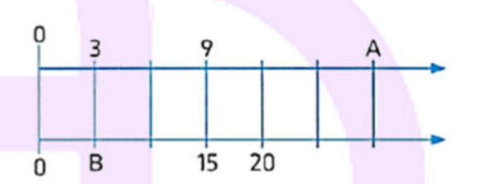
24 From the opposite double number line, x = ...



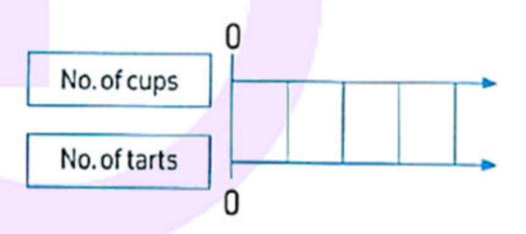
25 From the opposite double number line, if the ratio between what Omar saved to what Eman saved was 3 : 4 if Eman saved 20 L.E., then Omar saved .... L.E.



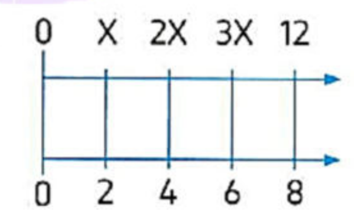
26 In the opposite double number line, A = ..., B = ...



27 From the opposite double number line. If Sally used 2 cups of flour to make a tart, then she used 8 cups of flour to make .... tarts.



28 From the opposite double number line, x = ...



Answer the following

1. **If Wael has 40 L.E. and Ahmed has 32 L.E. Find.**
   The ratio between what Wael has and the total sum of money in simplest form.

2. The total number of boys and girls in a school is 540 , if the number of boys in this school is 300 , **find :**
   The ratio between the number of boys and the number of girls.

3. In a juice shop 3 kilograms of strawberry were squeezed to provide 9 cups of juice to customers. If 6 kilograms were squeezed, how many cups can be served to customers ?

4. A runner covers 24 kilometres in 6 hours.
   Find the distance he covers in 4 hours at the same speed.

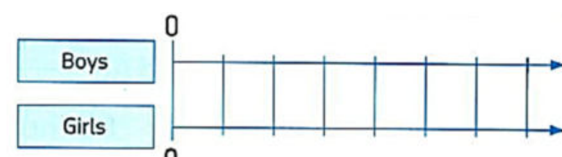
5. If the price of 4 kilograms of cheese is 800 L.E.
   Find the price of 3 kilograms of the same cheese.

6. The ratio between number of cats and dogs is 2 : 7 and the sum of them is 45.
   Find the number of each by using the tape diagram.

7. If the ratio between what Sameh saved to what Karim saved was 7 : 4 and the difference between them is 12 L.E. **Find what each one save by using tape diagram.**

8. If the ratio between number of boys and girls in a class is 4 : 5 and the number of boys is 20 boys. **Find the total pupils in the class by using tape diagram.**

9. If the ratio between number of boys and girls is 7 : 6 and the number of girls is 42 girls.
   Use the double number line to find :



   1. The number of boys
   2. The total number of pupils

The Answers

Choose the correct answer:

1. C	2. C	3. D	4. C	5. D
6. C	7. A	8. A	9. B	10. B
11. B	12. A	13. A	14. D	15. B
16. D	17. B	18. C	19. A	20. B
21. B	22. B	23. B	24. A	25. B
26. B	27. C	28. B	29. A	30. A
31. D	32. B	33. C	34. B	35. B
36. C	37. B	38. D	39. B	40. B
41. C	42. D	43. C	44. D	45. D
46. B	47. D	48. B	49. B	50. D
51. D	52. D			

Complete the following:

1) rate	2) 25	3) $\frac{5}{3}$	4) 8 : 32
5) 2 : 3	6) 3 : 5	7) 4 : 5	8) L , Y
9) 49	10) 16	11) 8	12) 14
13) 4	14) 28	15) 9	16) 28
17) 90	18) 80	19) 16	20) 15+28 = 43
21) 50,100,150	22) $\frac{4}{3}$	23) 80	24) 9
25) 15	26) 18, 5	27) 4	28) 3

The Answers

Answer the following:

1) 40 : 72 = 5 : 9

2) 300 : 240 = 5 :4

3) 18 cups

4) 24 km

5) 600 L.E

6) value of each block = 45 ÷ 9 = 5

cats = 2 x 5 = 10

dogs = 7 x 5 = 35

cats	5	5					
dogs	5	5	5	5	5	5	5

7) value of each block = 12 ÷ 3 = 4

Sameh = 4 x 7 = 28 L.E

Karim = 4 x 4 = 16 L.E.

Sameh	4	4	4	4	4	4	4
Karim	4	4	4	4			

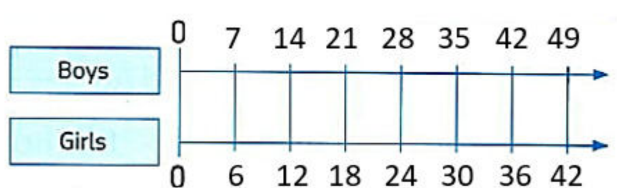
8) value of each block = 20 ÷ 4 = 5

total = 5 x 9 = 45

Boys	5	5	5	5	
Girls	5	5	5	5	5

9) the number of boys = 49

the total = 49 + 42 = 91



Unit 10

Choose the correct answer

1. Which of the following is a unit rate?

   A. 60 sec per min B. 6 kg per 3 liters

   C. 2 km per 60 min D. 16 grams per a cup

2. Which of the following is NOT a unit rate?

   A. 140 L.E. weekly B. 90 km per 60 minutes

   C. $\frac{1}{5}$ kg of flour per cupcake D. 25 L.E. for each kg

3. Which of the following is a conversion factor?

   A. $\frac{4\text{ km}}{1\text{ hour}}$ B. $\frac{60\text{ min}}{1\text{ sec}}$ C. $\frac{1\text{ week}}{7\text{ days}}$ D. $\frac{1{,}000\text{ cm}}{1\text{ km}}$

4. Which of the following is not a conversion factor?

   A. $\frac{60\text{ min}}{1\text{ sec}}$ B. $\frac{1{,}000\text{ m}}{1\text{ km}}$ C. $\frac{1\text{ L}}{1{,}000\text{ mL}}$ D. $\frac{1\text{ day}}{24\text{ hours}}$

5. To convert from hr. to min. the conversion factor is ....

   A. $\frac{1\text{ hr.}}{60\text{ min.}}$ B. $\frac{60\text{ hr.}}{1\text{ min.}}$ C. $\frac{60\text{ min.}}{1\text{ hr.}}$ D. $\frac{1\text{ min.}}{60\text{ hr.}}$

6. $\frac{1\text{ m}}{\text{.....}}$ is NOT a conversion factor.

   A. 100 cm B. 1,000 mm C. 0.001 km D. 60 min

7. $\frac{1\text{ km}}{\text{.....}}$ is a conversion factor.

   A. 2 hours B. 100 cm C. 1,000 km D. 1,000 m

8. $\frac{\text{.....}}{3600\text{ sec.}}$ is a conversion factor.

   A. 1 min B. 1 sec C. 1 hr. D. 60 min.

9. 150 km per 3 hr = ... km per hr

   A. 450 B. 200 C. 250 D. 50

Unit 10

Choose the correct answer

10 A car consumes $\frac{1}{10}$ liter of petrol to cover 1 km , then it covers ________ km per liter.

A. 10 B. 20 C. 5 D. 1

11 If 20 cups of flour uses to make 5 pizzas , then ________ pizza per a cup of flour.

A. 100 B. 4 C. $\frac{1}{5}$ D. $\frac{1}{4}$

12 Which of the following is the best price ?

A. 25 L.E. for 5 kg B. 6 kg for 36 L.E. C. $\frac{1}{3}$ kg per L.E. D. 4 L.E. per kg

13 From the opposite tape diagram, the unit rate of the printer is ________ papers per min



A. 250 B. 50
C. 10 D. 25

14 The unit rate from the opposite tape diagram is ________



A. 20 days per km B. 120 km per 6 days
C. 6 days per 120 km D. 20 km per day

15 0.25 kg = ________ gm

A. 25 B. 250 C. 2,500 D. 25,000

16 ________ gm = 30 kg

A. 0.03 B. 3,000 C. 300 D. 30,000

17 256 cm = ________ m

A. 25600 B. 25.6 C. 2560 D. 2.56

18 360 sec = ________ hour(s)

A. 60 B. 10 C. 3,600 D. 0.1

19 2.5 liters ☐ 205 millilitres

A. < B. = C. >

Choose the correct answer

20 3.5 cm ☐ 25 mm

A. >   B. <   C. =

21 4.8 L × ____ = 4,800 mL

A. $\frac{100\text{ mL}}{1\text{ L}}$ B. $\frac{1{,}000\text{ L}}{1\text{ mL}}$ C. $\frac{1{,}000\text{ mL}}{1\text{ L}}$ D. $\frac{1\text{ L}}{1{,}000\text{ mL}}$

22 60 meters per hour = ____ meter(s) per min.

A. 3,600   B. 120   C. 360   D. 1

23 180 km per hour = ____ m per min.

A. 3   B. 30   C. 300   D. 3,000

24 120 m per min = ____ cm per sec.

A. 200   B. 720   C. 1,200   D. 12,000

25 Which value is NOT equivalent to 45 %?

A. 0.45   B. $\frac{9}{20}$ C. $\frac{45}{100}$ D. 4.5

26 5 to 10 = ____ %

A. 50   B. 5   C. 0.5   D. 20

27 $1\frac{3}{5}$ = ____ %

A. 1.6   B. 60   C. 160   D. 16

28 45 % + 0.55 = ____

A. 1 %   B. 100   C. 1   D. 0.1

29 1 – 25 % = ____

A. 75   B. 7.5   C. 0.75   D. 24

30 1 – (20% + 35%) = ____

A. 45   B. 4.5%   C. $\frac{9}{20}$ D. 0.045

Choose the correct answer

31. If $\frac{x}{5} = 20\%$, then x = ...

A. 2 B. 1 C. 4 D. 5

32. If $\frac{x+1}{4} = 25\%$, then x = ...

A. 1 B. 2 C. 3 D. 0

33. 65% of 44 ☐ 44% of 65

A. < B. > C. =

34. 55 % ☐ $\frac{2}{5}$

A. < B. = C. >

35. $\frac{1}{8}$ ○ 8%

A. > B. < C. =

36. If the price of a ball is 120 L.E. , then 10 % of its price is .... L.E.

A. 1.2 B. 12 C. 0.12 D. 0.012

37. If the price of a watch is 350 L.E. , then 1 % of its price is .... L.E.

A. 3.5 B. 35 C. 0.35 D. 0.035

38. If the price of a shirt is 200 L.E. , then $\frac{1}{2}$ % of its price = ... L.E.

A. 2 B. 10 C. 1 D. 0.5

39. 2.5 % of 700 L.E. = ... L.E.

A. $\frac{2}{5}$ B. 70 C. 175 D. 17.5

40. 30% of 50 kg. = ... kg.

A. 5 B. 10 C. 15 D. 20

41. 45 % of a kilometre = ... m

A. 450 B. 4500 C. 45 D. 0.45

Choose the correct answer

42 20% of the students in a class are wearing black. There are 40 students in the class. How many students are wearing black ?

A. 4 B. 8 C. 12 D. 16

43 20% of pupils in the class = 5 pupils , then the total number of pupils in the class = ______

A. 20 B. 50 C. 100 D. 25

44 25% of a number = 120, then this number = ______

A. 30 B. 2.5 C. 480 D. 360

45 10 % of ______ kg = 12 kg

A. 1.2 B. 0.12 C. 120 D. 1,200

46 ______ % of 240 = 60

A. $\frac{1}{4}$ B. 0.25 C. 2.5 D. 25

47 If the percent of boys in a school is 52 % , then the percent of girls is ______ %

A. 52 B. 48 C. 0.48 D. 0.52

48 40 % of a number = ______ % of half of the same number.

A. 10 B. 20 C. 80 D. 100

49 25 % of 1000 = 50 % of ______

A. 2000 B. 1500 C. 1250 D. 500

50 If the price of a shirt is 280 L.E. before discount 10% then the discount is ______ L.E.

A. 2.8 B. 28 C. 252 D. 270

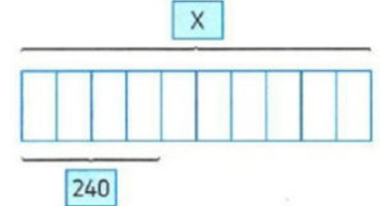
51 From the opposite table ,
the value of unknown = ______

Whole	Part	Percent
Unknown	120	40 %

A. 30 B. 480
C. 300 D. 120

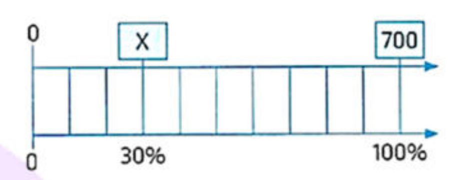
Choose the correct answer

52 From the opposite tape diagram, x = ...



A. 60
B. 240
C. 400
D. 600

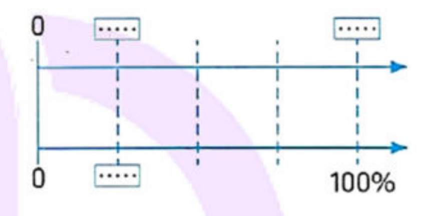
53 From the opposite double number line , x = ...



A. 70
B. 140
C. 210
D. 420

54 From the opposite double number line ,

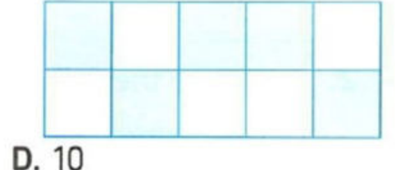
25 % of 80 = ...



A. 25
B. 20
C. 40
D. 60

55 **From the opposite figure :**

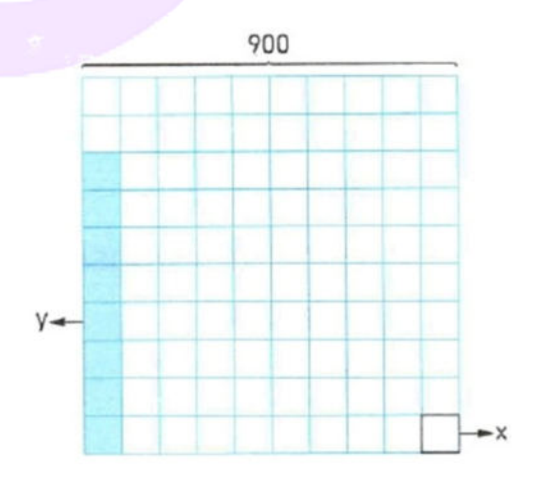
The percentage of the shaded part to whole figure = ... %



A. 5
B. 0.5
C. 50
D. 10

56 From the opposite 10 × 10 grid :

y − x = ...



A. 9
B. 54
C. 63
D. 72

Unit 10

Complete the following

1. A car consumes 20 liters per 200 km , then its unit rate is .... km per liter.
2. $2\frac{1}{4}$ days = ... hours.
3. 2.5 hr = ... min
4. .... kg = 20 grams.
5. 200 m × .... = 0.2 km
6. 10 L.E. for each kg, then .... kg per L.E.
7. 15 km per hr = ... km per min
8. .... km per hour = 10 meters per min
9. 25 km per hour = ... meters per hour.
10. 60 meters per min = ... meter(s) per sec.
11. 48 kg per day = ... kg per hour
12. 1.23 = ... %
13. 20 % + 50 % = ...
14. 20 % + 40 % + 40 % = ...
15. 40 % + 0.42 = ... %
16. $25\ \% \div \frac{1}{4} =$ .... %
17. $35\ \% \div \frac{7}{20} =$ .... %
18. 32 % = 1 − .... %
19. $1 - (\frac{1}{2} + 30\ \%) =$ .... %
20. 1 − (20 % + 35 %) = ...
21. $50\% + \frac{1}{2} =$ ....
22. $\frac{x}{4} = 25\%$, then x = ...
23. $\frac{x+1}{10} = 30\ \%$
24. If $\frac{2}{x-1} = 50\ \%$, then x = ...
25. .... % of 600 L.E. = 120 L.E.
26. 25 % of 1,000 = 50 % of ....

Unit 10

Complete the following

27. $33\frac{1}{3}$ % of 60 = ...

28. 5 % of 600 kg = ... kg

29. 45 % of one kilometer = ... m

30. 2.5 % of one kilogram = ... grams.

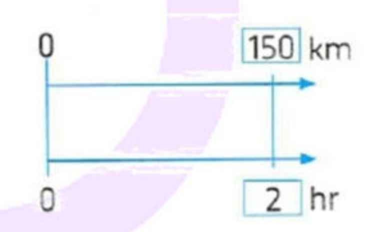
31. $\frac{1}{2}$ % of 1 kg = ... gram

32. 20% of .... = 15

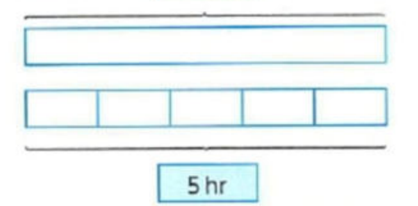
33. If the price of a T.V set is 18,000 L.E., then 1% of its price = ... L.E.

34. A store offer a discount 20% on a shirt of price 400 L.E., then its price after discount = ... L.E.

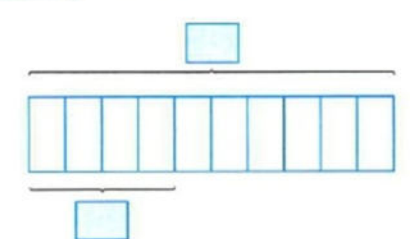
35. From the opposite double number line, the unit rate is ....



36. From the opposite tape diagram, the unit rate is ....



37. If 40% of a number is 140 find that number by using the opposite tape diagram.



Unit 10

Answer the following

1. If the height of the Great Pyramid is approximately 14600 centimeters. About how many meters tall is the Great Pyramid ?

2. On most summer days, camels drink about 20,000 milliliters of water. **How many liters of water is that ? Show your calculations.**

3. Two machines produce cloth , the first one produces 365 meters in 5 hours and the second produces 480 meters in 6 hours. **Which machine is better ?**

4. **Which is best to buy ?**
   1. 15 kg per 30 L.E. **2.** 12.5 L.E. per 5 kg

5. A speed of a car is 2500 cm per sec. convert its speed to km per hr.

6. An employee saves L.E. 600 monthly. If his monthly income is L.E. 3,000 **Find the percentage of what he saves monthly.**

7. There are 250 pupils in a school , 15 pupils of them were absent one day. **Find the percentage of absentees on that day.**

8. The number of pupils in a school is 720. One day , 7.5 % of them were absent. **Find the number of the present pupils that day.**

9. In a maths exam, Yasser got 80% and Fayez got 45 marks out of 60 which of them has got a better score. **What is the difference between their scores ?**

10. Wael bought a flat for 360,000 L.E. , he paid 30% of its price. **How much money did he pay ?**

11. A man bought a T.V. set. He was given a 15 % discount of its marked price which was 8,500 L.E. **Find its price after discount.**

Answer the following

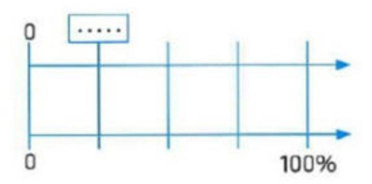
12 The price of a T.V. set is 16,000 L.E. and the sales tax on the T.V. set is 12 %
What is the price of the T.V set after adding the tax ?

13 A piece of cloth of 10 meters long , was put in water. It shrunk by 4 %
What is the length after shrinking ?

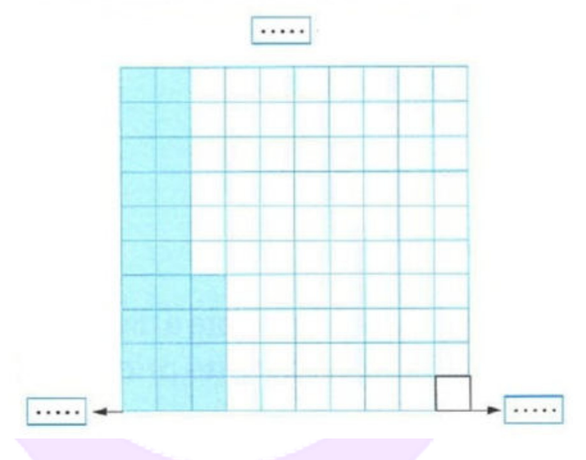
14 If a man deposited 20,000 pounds in a bank with interest 20 % per year.
Find the total amount which he gets at the end of one year.

15 **Find the value of each of the following by using the given model.**

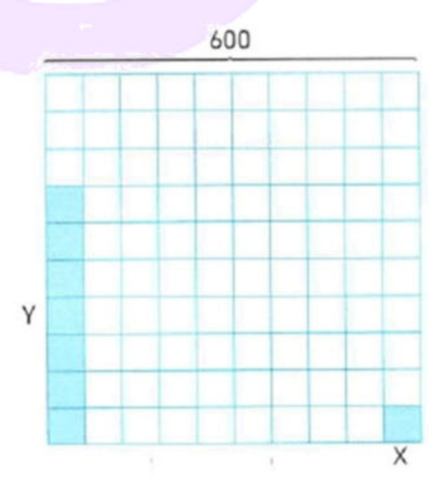
1. 25 % of 80



2. 24 % of a number is 72



16 From the opposite 10 × 10 grid ,
Find : X + Y



The Answers

Choose the correct answer:

1. D	2. B	3. C	4. A	5. C
6. D	7. D	8. C	9. D	10. A
11. D	12. C	13. C	14. D	15. B
16. D	17. D	18. D	19. C	20. A
21. C	22. D	23. D	24. A	25. D
26. A	27. C	28. C	29. C	30. C
31. B	32. D	33. C	34. C	35. A
36. B	37. A	38. C	39. D	40. C
41. A	42. B	43. D	44. C	45. C
46. D	47. B	48. C	49. D	50. B
51. C	52. D	53. C	54. B	55. C
56. C				

Complete the following:

1) 10	2) 54	3) 150	4) 0.02
5) $\frac{1km}{1000m}$	6) $\frac{1}{10}$	7) 0.25	8) 0.6
9) 25,000	10) 1	11) 2	12) 123
13) 70% = 0.7	14) 100% = 1	15) 82%	16) 1 = 100%

The Answers

Complete the following:

17) 1 = 100%
18) 68%
19) 20%
20) 0.45
21) 1
22) 1
23) 2
24) 5
25) 20%
26) 500
27) 20
28) 30
29) 450
30) 25
31) 5
32) 75
33) 180
34) 320
35) 75 per hr
36) 80 km per hr
37) 140 ÷ 4 = 35

the number = 35 x 10 = 350

Answer the following:

1) 14600 ÷ 100 = 146 meter

2) 20,000 ÷ 1000 = 20 L

3) unit rate of first machine = 365 ÷ 5 = 73 m per hr

unit rate of first machine = 480 ÷ 6 = 80 m per hr

the second is better

4) first = 30 ÷ 15 = 2 LE per Kg

second =12.5 ÷ 5 = 2.5 LE per Kg

first is better

The Answers

5) $\frac{2500\text{ cm}}{1\text{ sec}} \times \frac{1\text{k}}{100{,}000\text{ cm}} \times \frac{3600\text{ sec}}{1\text{hr}}$ = 90 km per hr

6) the percentage of saving = $\frac{600}{3000} \times 100 = 20\ \%$

7) the percentage of absentees = $\frac{15}{250} \times 100 = 6\%$

8) the number of absent = 720 X 7.5% = 54 pupils

the number of present = 720 - 54 = 666 pupils

9) Yasser got 60 x 80% = 48 marks

the better score is Yasser

the difference = 48-45 = 3 marks

10) he paid = 360,000 x 30% = 108,000 LE

11) the discount = 8,500 x 15% = 1275 LE

the price after discount = 8,500 – 1,275 = 7,225 LE

12) the tax = 16,000 x 12% = 1,920 LE

the price after tax = 16,000 + 1,920 = 17,920 LE

13) the shrinking = 10 x 4% = 0.4 m

the length after shrinking = 10 – 0.4 = 9.6 m

The Answers

14) the interest = 20,000 x 20% = 4000 LE

the total = 20,000 + 4,000 = 24,000 LE

15) 1. part = 20

2. the part = 72 one part = 72 ÷ 24 = 3

the total = 3 x 100 = 300

16) X = 6 , Y = 6 x 7 = 42 X+Y = 6 + 42 = 48

Units 11, 12, 13

Choose the correct answer

1. The horizontal line in the coordinate plane is called ....

   A. x-axis. B. y-axis. C. origin point.

2. The vertical number line on a coordinate plane is called ....

   A. x-axis. B. y-axis. C. origin point.

3. The point of intersection of x-axis and y-axis is called ....

   A. x-axis. B. y-axis. C. origin point.

4. The origin point is ....

   A. (1 , 0) B. (0 , 1) C. (0 , 0) D. (1 , 1)

5. The y-coordinate in the orderd pair (1 , 8) is ....

   A. 1 B. 8 C. 1 + 8 D. 8 – 1

6. Which of the following points located on y-axis ?

   A. (1 , 0) B. (0 , 1) C. (1 , 1) D. (7 , 0)

7. The X-coordinate in ordered pair (3 , 2) is ....

   A. 3 B. 2 C. 5 D. 6

8. The point .... lies on X-axis.

   A. (0 , 5) B. (1 , 5) C. (5 , 1) D. (5 , 0)

9. The point .... lies in the 1st quadrant.

   A. (2 , 3) B. (–1 , 2) C. (4 , –3) D. (–6 , –2)

10. The point $\left(1, -1\frac{1}{2}\right)$ lies in the .... quadrant.

    A. first B. second C. third D. fourth

11. The point .... lies in the second quadrant.

    A. (2 , 2) B. (–2 , 2) C. (2 , –2) D. (–2 , –2)

Units 11, 12, 13

Choose the correct answer

12 The point (– 2 , – 3) lies in the ________ quadrant.

A. first B. second C. third D. fourth

13 Which point is the closest to the x-axis ?

A. (2 , 5) B. (7 , 6) C. (1 , 4) D. (0 , 2)

14 Which point is the closest to the y-axis ?

A. (3 , 1) B. (2 , 5) C. (1 , 7) D. (6 , 2)

15 The point which is plotted 5 units to the left of the origin point and 2 units up is ________

A. (5 , 2) B. (– 5 , – 2) C. (– 5 , 2) D. (2 , – 5)

16 The point which is plotted 6 units to the right of the origin point and 2 units down is ________

A. (2 , 6) B. (6 , – 2) C. (6 , 2) D. (– 2 , 6)

17 Moving the point (– 1 , 3) 2 units to the left and 4 units down , then the new point is ________

A. (– 3 , – 1) B. (1 , 7) C. (1 , – 1) D. (3 , 7)

18 Moving the point (3 , 4) 3 units to the right and 5 units down , then the end point is ________

A. (0 , 9) B. (6 , – 1) C. (0 , – 1) D. (6 , 9)

19 The image of the point (– 2 , – 5) by reflection across the x-axis is the point ________

A. (– 2 , 5) B. (2 , 5) C. (2 , – 5) D. (– 2 , – 5)

20 The image of the point (– 3 , – 5) by reflection across the y-axis is the point ________

A. (– 3 , 5) B. (3 , 5) C. (3 , – 5) D. (– 5 , 3)

21 The image of the point (3 , 0) by reflection across x-axis is ________

A. (– 3 , 0) B. (0 , – 3) C. (3 , 0) D. (0 , 3)

Units 11, 12, 13

Choose the correct answer

22 Laila plotted a point on a coordinate plane to represent the ordered pair $(7, 4)$.
Which statement is true about the x-coordinate in the ordered pair?

A. The x-coordinate is 7 units up from the x-axis.

B. The x-coordinate is 7 units to the right of the y-axis.

C. The x-coordinate is 4 units below the x-axis

D. The x-coordinate is 4 units to the right of the y-axis

23 What is the distance between the points $(4, -7)$ and $(-5, -7)$?

A. 1 unit **B.** 3 units **C.** 7 units **D.** 9 units

24 
What is the distance between the points $(-2, -1)$ and $(-2, -3)$

A. 1 unit **B.** 3 units **C.** 4 units **D.** 2 units

25 The distance between the point $(-4, -3)$ and its image by reflection across the y-axis is ________ units.

A. 8 **B.** 6 **C.** 14 **D.** 7

26 The distance between A and B is ________ units.

B: -4, 0, A: 5

A. 7 **B.** 1 **C.** 9 **D.** 5

27 In the opposite figure, the distance between the two points C and D is ________ units.

D: -190, C: -100, 0

A. 90 **B.** 290 **C.** 100 **D.** 190

28 If the distance between A and B is 200, then x = ________

A: x, 0, B: 100

A. 100 **B.** -100 **C.** -200 **D.** 200

29 Which of the following values could be the y-coordinate of the point (10, ________) that is 13 units from $(10, 6)$?

A. 17 **B.** 3 **C.** -1 **D.** -7

Units 11, 12, 13

Choose the correct answer

30. If A (1 , 3) and C (4 , 1) and $\overline{AB} \perp \overline{BC}$, then the point B is ……………

A. (1 , 4) B. (3 , 1) C. (4 , 2) D. (1 , 1)

31. If the two points A (6 , 1) and B (3 , 1) are two vertices in a right triangle ABC , then the point C could be ……………

A. (4 , −1) B. (3 , −1) C. (5 , −1) D. (4 , 1)

32. Plot the points O (0 , 0) , A (3 , 0) , B (3 , 4) , C (0 , 4) and draw $\overline{OA}$, $\overline{AB}$, $\overline{BC}$ and $\overline{CO}$, which figure is obtained ?

A. Square B. Rectangle C. Trapezium D. Rhombus

33. Area of a parallelogram =

A. $\frac{1}{2} \times b \times h$ B. $b \times h$ C. $2 \times b \times h$ D. $\frac{b \times h}{4}$

34. The two bases of a parallelogram are 9 cm, 5 cm and **the greater** height is 6 cm, then area = …………… cm^2

A. 30 B. 54 C. 45 D. 24

35. The two bases of a parallelogram are 8 cm, 6 cm and the smaller height is 5 cm, then area = …………… cm^2

A. 30 B. 40 C. 48 D. 24

36. A parallelogram with area 48 cm^2 and base length 6 cm , then it's corresponding height is …………… cm

A. 9 B. 8 C. 7 D. 8.5

37. If the area of the parallelogram is 56 cm^2 and its height is 7 cm , then its base length = …………… cm

A. 63 B. 49 C. 8 D. 6

38. The two bases of a parallelogram are 5 cm, 4 cm and the smaller height is 8 cm, then **the greater** height = …………… cm

A. 32 B. 9 C. 10 D. 40

Units 11, 12, 13

Choose the correct answer

39. The area of the rhombus of side length 7 cm and height 4 cm is .... cm^2

A. $7+4$ B. $(7+4)\times 2$ C. 7×4 D. $(7\div 4)\times 2$

40. The area of the rhombus whose perimeter 40 cm and height 8 cm is .... cm^2

A. 80 B. 48 C. 320 D. 32

41. If the height of a rhombus is 5 cm and it's area is 35 cm^2, then it's side length is .... cm

A. 7 B. 30 C. 40 D. 3.5

42. If the area of rhombus is 55 cm^2 and its side length is 11 cm, then its height = ... cm

A. 5 B. 44 C. 66 D. 5.5

43. A rhombus of side length 14 cm and the ratio between its height and its side length is 5 : 7, then the area of the rhombus is .... cm^2

A. 35 B. 70 C. 100 D. 140

44. The area of the triangle equal All except ....

A. $\frac{1}{2}\times b\times h$ B. $\frac{b\times h}{2}$ C. $\frac{b}{2}\times h$ D. $2\times b\times h$

45. If ABC is a right-angled triangle at B, and BC = 10 cm, AB = 8 cm, then its area = ... cm^2

A. 40 B. 80 C. 18 D. 9

46. If the perimeter of an equilateral triangle is 18 cm and its height is 7 cm, then its area = ... cm^2

A. 42 B. 21 C. 126 D. 25

47. the area of a triangle is 30 m^2 and its base length is 5 m, then its corresponding height = ... m

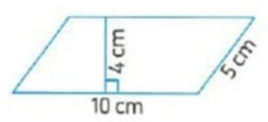
A. 35 B. 6 C. 12 D. 25

Units 11, 12, 13

Choose the correct answer

48 The area of the opposite parallelogram = ________ cm^2

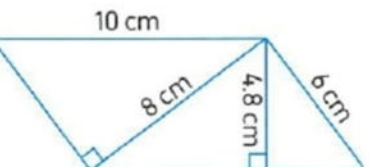
A. 50 B. 40 C. 20 D. 30



49 Which of the following equations represents the area of the opposite parallelogram ?

A. $8 \times 6 = 48\ cm^2$ C. $8 \times 4.8 = 38.4\ cm^2$

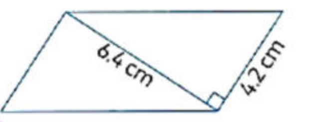
B. $6 \times 4.8 = 28.8\ cm^2$ D. $8 \times 10 = 80\ cm^2$



50 The area of the opposite parallelogram ≃ ________ (to nearest whole number)

A. $26\ cm^2$ B. $26.88\ cm^2$

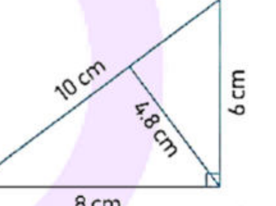
C. $27\ cm^2$ D. $26.9\ cm^2$



51 Which expression represents the area of the drawn triangle ?

A. $\frac{1}{2} \times 6 \times 10$ B. $\frac{1}{2} \times 4.8 \times 8$

C. $\frac{1}{2} \times 6 \times 8$ D. $\frac{1}{2} \times 8 \times 10$



52 The corresponding height of the base $\overline{BC}$ is ________

A. $\overline{BD}$ B. $\overline{AE}$

C. $\overline{BE}$ D. $\overline{AB}$

53 **In the opposite figure :**

ABC is a triangle in which , $\overline{AD} \perp \overline{BC}$, $AD = 5$ cm , area of $\Delta ABC = 15\ cm^2$ then BC = ________ cm

A. 3 B. 6 C. 9 D. 12

54 The area of the opposite trapezium = ________ cm^2

A. 30 B. 34

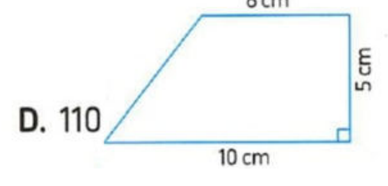
C. 40 D. 55

Choose the correct answer

Units 11, 12, 13

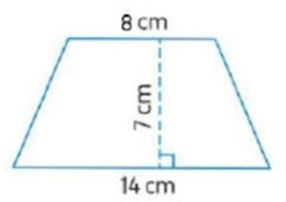


55 The area of the opposite trapezium = ... cm^2



A. 40 **B.** 50 **C.** 80 **D.** 110

56 The area of the opposite trapezium = ... cm^2



A. 56 **B.** 77

C. 98 **D.** 38.5

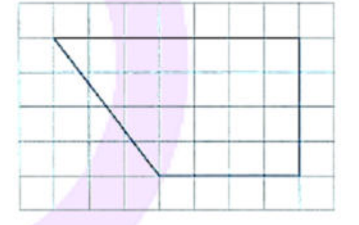
57 Which of the following expressions does represent the area of the colored trapezium ?



A. $\frac{1}{2} \times 7 \times 4$ **B.** $(7 \times 4) + (\frac{1}{2} \times 3 \times 4)$

C. $(7 \times 4) - (\frac{1}{2} \times 3 \times 4)$ **D.** $(7 \times 4) - (3 \times 4)$

58 The area of the opposite trapezium = ... square units.



A. $28 - 6$ **B.** $28 + 6$

C. $16 + 12$ **D.** $16 - 12$

59 The volume of the cuboid = ...

A. $l + w + h$ **B.** $2lwh$ **C.** lwh **D.** $\frac{lwh}{2}$

60 The volume of a cuboid whose length 9 cm, width 5 cm and height 8 cm is .... cm^3

A. 360 **B.** 157 **C.** 314 **D.** 626

61 Which of the following estimations is suitable for the volume of a cuboid whose dimensions are 7.5 cm, 6.5 cm and 4.5 cm ?

A. 100 cm^3 **B.** 160 cm^3 **C.** 280 cm^3 **D.** 400 cm^3

62 The volume of a cuboid of a square base of side length 14.2 cm and height $6\frac{1}{2}$ cm is .... cm^3

A. 553.8 **B.** 806.56 **C.** 1,209.84 **D.** 1,310.66

Units 11, 12, 13

Choose the correct answer

63 The volume of a cuboid of the base area 38.14 cm^2 and height 7.3 cm is ________ cm^3

A. 422.278 B. 278.422 C. 278.224 D. 422.872

64 If the volume of a cuboid is 646.94 cm^3 and one of its dimensions is doubled , then the new volume is ________ cm^3

A. 323.49 B. 1,293.88 C. 1,940.92 D. 646.94

65 If the three dimensions of a cuboid are doubled, then the ratio between the new volume to the original volume of the cuboid is

A. 8 : 1 B. 1 : 8 C. 4 : 1 D. 1 : 4

66 If the height of a cuboid is divided in half, then the ratio between the new volume to the original volume is ________

A. 2 : 1 B. 4 : 2 C. 1 : 2 D. 2 : 3

67 The surface area of a cube = ________

A. $S \times S \times S$ B. $6 \times S^2$ C. $6 \times (S + S)$ D. $(S \times S) + 6$

68 The surface area of a cube whose side length 6 cm is ________ cm^2

A. 36 B. 96 C. 216 D. 18

69 The surface area of a cube of side length 3.2 m is ________ m^2

A. 61.44 B. 32.768 C. 40.96 D. 10.24

70 The surface area of the rectangular prism is ________

A. $l + w + h$ B. $l \times w \times h$ C. $2l + 2w + 2h$ D. $2 \times (lw + lh + wh)$

71 The surface area of a rectangular prism of length 9 cm , width 4 cm and height 8 cm is ________ cm^2

A. 280 B. 140 C. 42 D. 576

72 The surface area of a square pyramid , if the side length 8 cm and the height of the triangular face 9 cm is ________ cm^2

A. 208 B. 352 C. 136 D. 100

Units 11, 12, 13

Choose the correct answer

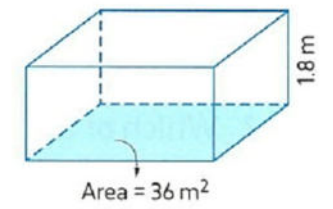
73 A square pyramid, its base perimeter is 36 cm and the area of one of its triangular faces is $29\frac{3}{4}$ cm^2, then its surface area is .... cm^2

A. 100 B. 200 C. 300 D. 400

74 The volume of the opposite cuboid is .... m^3

A. 96 B. 64.8

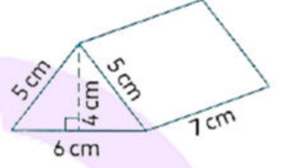
C. 75.24 D. 58.8



75 The surface area of the opposite triangular prism is .... m^2

A. 24 B. 112

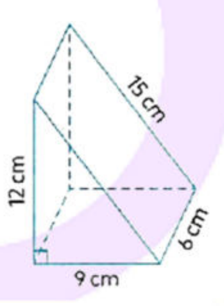
C. 136 D. 163



76 The surface area of the opposite triangular prism is .... cm^2

A. 324 B. 234

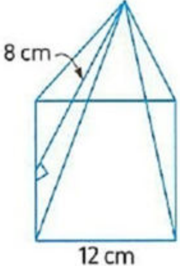
C. 810 D. 648



77 The surface area of the opposite square-based pyramid is .... cm^2

A. 360 B. 336

C. 528 C. 240



Units 11, 12, 13

Complete the following

1. In the point (5 , 2) , the y-coordinate is ________
2. The point (– 3 , – 4) lies in the ________ quadrant
3. The point (2 , – 3) lies in the ________ quadrant.
4. The point (4 , 3) lies in the ________ quadrant.
5. The point $(-2\frac{1}{4}, 0)$ lies on the ________ -axis.
6. The point (5 , 8) is located ________ units from the y-axis.
7. If point S (2 , 6) and point Q (5 , 9) , then point ________ is closer to the x-axis.
8. A point is located 3 units to the right of the origin point and 2 units up , then the point is (________ , ________)
9. If the point (2 , 5) is moved 6 units to the left and 3 units up , then the new point is ________
10. The point (4 , 7) by reflection across the x-axis is the point ________
11. The image of the point (3 , 1) by reflection across the y-axis is the point ________
12. The point (0 , – 4) is the image of itself by reflection across ________ -axis
13. The image of the point (________ , ________) by reflection across y-axis is (0 , 5)
14. If the point (– 1 , 4) is the image of the point (a , b) by reflection in the y-axis, then a + b = ________
15. The distance between the two points (3 , – 4) and (3 , 7) is ________ units.
16. The distance between the point (0 , – 4) and the origin O = ________ units
17. The distance between the point (1 , 2) and its image by reflection across x-axis = ________ units.

Units 11, 12,13

Complete the following

18 The distance between A (2 , y) and B (2 , – 1) is 6 units and the point A lies in first quadrant , then y = ...

19 The figure with the vertices A (– 3 , 2) , B (– 7 , – 3) , C (6 , – 3) and D (2 , 2) is called

20 If the two points A (– 2 , 2) and B (3 , a) are on the same horizontal line in the coordinate plane, then a = ...

21 A square of side length 2.5 cm , then its area = ... cm^2

22 A gift box in the shape of a cube of side length 30 cm, then its surface area is .... cm^2

23 The perimeter of one face of a cube is 28 cm, then the surface area of the cube is .... cm^2

24 The surface area of a cube is 150 m^2 , then its side length is .... m

25 The volume of a cuboid, if all its dimensions are equal and each one equals 15 cm is .... cm^3

26 A cuboid of a square shaped base of side length 15 cm and height 8 cm , then its volume is .... cm^3

27 If the volume of a cuboid is 240 cm^3 and all the dimensions are doubled , then the new volume is .... cm^3

28 If two dimensions in a cuboid are tripled , then the ratio between the original volume and the new volume is ....

29 If the length of a cuboid is divided in half, then the ratio between the new volume to the original volume of the cuboid in the simplest form is ....

30 A triangle is of base length 5 cm and its corresponding height is 2 cm more than it. , then **the area of the triangle** is ....

Units 11, 12, 13

Complete the following

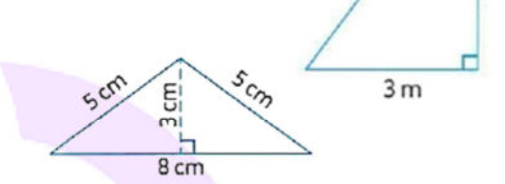
31 The surface area of the square pyramid in which the side length of its squared base is 8 cm, and the height of one of its triangular faces is 6 cm is ______

32 A square-based pyramid, the perimeter of its base 24.4 cm. and the area of each triangulare face is 30.5 cm^2, then its surface area is ______ cm^2

33 The area of the opposite triangle = ______ m^2

5 m, 4 m, 3 m

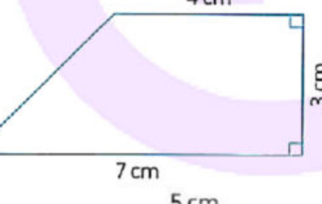
34 The area of the opposite triangle = ______ cm^2



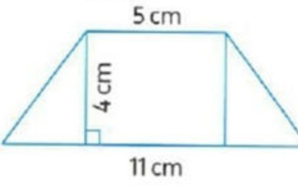
35 The area of the opposite triangle = ______



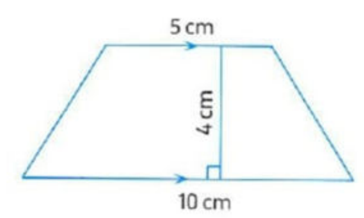
36 The area of opposite trapezium = ______ cm^2



37 The area of the opposite trapezium = ______ cm^2



38 The area of the opposite trapezium equals ______ cm^2



39 The triangular prism has ______ rectangular faces.

Units 11, 12, 13

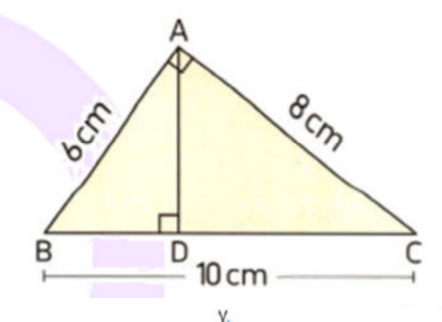
Answer the following

1. Which one is greater in area ?
A parallelogram whose base length is 12 cm and its corresponding height is 10 cm or a rectangle whose dimensions are 14 cm and 8 cm.

2. **Which one is greater in area ?**
A triangle with base length 8 cm and it's corresponding height 3.4 cm or a rhombus of side length 10 cm and a height 2.5 cm.

3. **Which one is greater in area ?**
A square-based pyramid , if the side length of the base 12 cm and the height of the triangular face is 8 cm or a rectangular prism of length 6 cm , width 8 cm and height 11 cm

4. **In the opposite figure :**

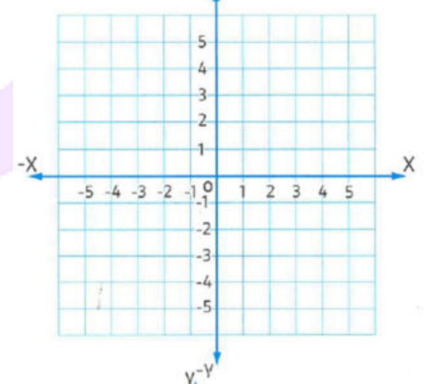


ABC is a right-angled triangle at A

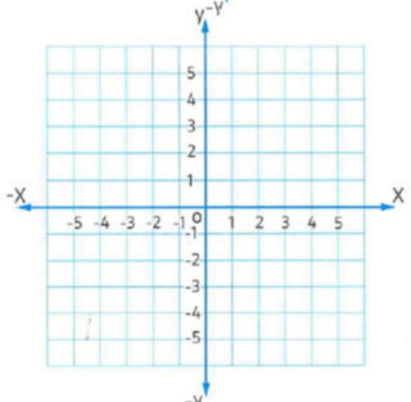
, $\overline{AD} \perp \overline{BC}$, AB = 6 cm, AC = 8 cm and BC = 10 cm

Find the area of Δ ABC and the length of $\overline{AD}$

5. Plot the points A (3 , 4) , B (1 , 1) , C (0 , 4)
Join them and find the image of each one by reflection across the y-axis



6. Plot the points A (1 , 1) , B (−4 , 1) and C (−4 , −4)
, then find the point D which makes ABCD is a square.
then find the distance between A and B



The Answers

Choose the correct answer:

1. A	2. B	3. C	4. C	5. B
6. B	7. A	8. D	9. A	10. D
11. B	12. C	13. D	14. C	15. C
16.B	17. A	18. B	19. A	20. C
21. C	22. B	23.D	24. D	25. A
26. C	27. A	28. B	29. D	30. D
31. B	32. B	33. B	34. A	35. B
36. B	37. C	38. C	39.C	40. A
41. A	42. A	43. D	44. D	45. A
46. B	47. C	48. B	49. A	50. C
51. C	52. B	53. B	54. B	55. A
56. B	57. C	58. A	59. C	60. A
61. C	62. D	63. B	64. B	65. A
66. C	67. B	68. C	69. A	70. D
71. A	72. A	73. B	74. B	75. C
76. A	77. B			

Complete the following:

1) 2	2) third	3) fourth	4) first
5) X-axis	6) 5	7) (2,6)	8) (3,2)

The Answers

Complete the following:

9) (-4,8)	10) (4,-7)	11) (-3,1)	12) Y-axis
13) (0,5)	14) 1+4=5	15) |-4|+|7|=11	16) 4
17) |2|+|-2|=4	18) 5	19) trapezium	
20) 2	21) 6.25	22) 5400	23) 294
24) 5	25) 3375	26) 1800	27) 1920
28) 1:9	29) 1:2	30) 17.5	31)160
32) 159.21	33) 6	34) 12	35) 12
36) 16.5	37) 32	38) 30	39) 3

Answer the following:

1) area of parallelogram = b x h =12x10 = 120 cm^2

   area of rectangle = L x W = 14 x 8 = 112 cm^2

   parallelogram is greater

2) area of triangle = $\frac{1}{2}$ x b x h = 4 x3.4 = 13.6 cm^2

   area of rhombus = s x h = 10 x 2.5 = 25 cm^2

   rhombus is greater

3) area of pyramid = (12 x 12) + (4 x $\frac{1}{2}$ x 12 x 8) = 336 cm^2

   area of rectangular prism = 2x(6x8+6x11+8x11) = 404 cm^2

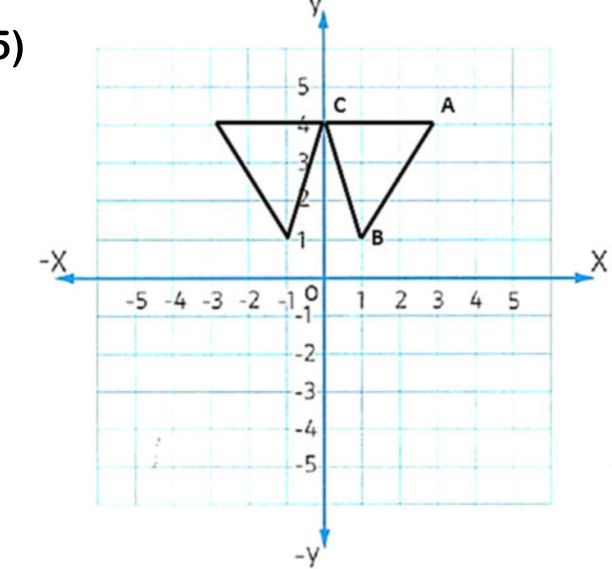
   rectangular prism is greater

4) area of triangle = $\frac{1}{2}$ x 6 x 8 = 24 cm^2

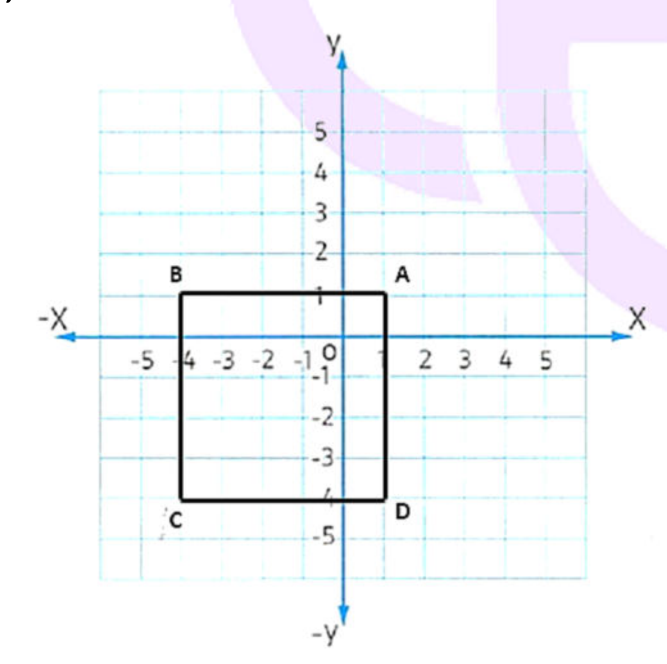
   length of AD = 24 x 2 ÷ 10 = 4.8 cm

The Answers

5)



6) the distance between A and B = 5 units



شرح خطوات الحل على قناة



Math For Kids: Hoda Ismail